Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.00	Rating **	Α	Issue No.		121	
LM End	0.00	Issue Type +	Ма	Location * N/A			
Category	Earthen Levee				atitude	e/Longitude	
Calegory				Start		End	
Item	Operations & Maintenance						0
пеш	Manuals		0				
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_121						
		Comn	nent Cod	le			
		Inspecto	or Comm	nent			
The RD has a digital copy of the O&M manual.							

No Photos

-								
LM Start	0.00	Rating **	М	Issue No.		123		
LM End	0.00	Issue Type +	Ma	Location *	* N/A			
Category	GPS Latitude/Longitude							
Calegory				Start		End		
Item	Flood Pre	paredness &		0		0		
пеш					0		0	
DWR ID	DWR_RD0	524_01_s _ 201	12_123					
		Comn	nent Cod	le				
		Inspect	or Comm	ent				
No recent	No recent training.							

No Photos

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.00	Rating **	М	Issue No.		138	
LM End	0.00	Issue Type +	Ма	Location *		N/A	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item		y Supplies &		0		0	
пеш	Equipmer	nt			0		0
DWR ID	DWR_RD0	524_01_s _ 201	3_138				
		Comn	nent Cod	le			
			_				
Inspector Comment							
The LMA does not appear to have emergency supplies or equipment.							

No Photos

LM Start	0.00	Rating **	М	Issue No.		147
LM End	6.20	Issue Type +	Ma	Location *		LS
Category Earthen Levee				GPS Latitude/Longitude		
Calegory			Start		End	
Item	Vegetatio	Vegetation			84 °	37.870424°
пеш				-121.3462	62 °	-121.329869 °
DWR ID	DWR_RD0					
Comment Code						

No Photos

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

LM Start	0.00	Rating **	М	Issue No.		148			
LM End	6.20	Issue Type +	Ма	Location *		WS			
Category	Category Earthen Levee					le/Longitude			
Category				Start		End			
Item	Vegetation					37.870422°			
пеш				-121.3462	62 °	-121.329869 °			
DWR ID DWR_RD0524_01_s _ 2018_148									
		Comn	nent Cod	le					
V1 : Contro	ol annual g	rass and wee	ds on th	e levee slo	oes a	and			
easements	S								
		Inspecto	or Comm	nent					

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.14	Rating **	М	Issue No.		237
LM End	0.14	Issue Type +	Ma	Location *		WS
Category	Earthen Levee				atitud	e/Longitude
Calegory				Start		End
Item	Animal Co	37.939774°		37.939774°		
item				-121.344490 °		-121.344490 °
DWR ID	DWR_RD0	524_01_f _ 201	7_237			·
		Comn	nent Cod	de		
A3 : No ro compact o		le, but rodent rows.	burrows	visible; ne	ed to	backfill and
Inspector Comment						



Looking northwest at the waterside slope.

LM Start	0.19	Rating **	U	Issue No.		1
LM End	0.19	Issue Type + Ma		Location *		WS
Category	Suppleme	GPS La	atitud	e/Longitude		
Calegory						End
Item	DWR Ero	sion Survey		37.9390	85 °	37.939085°
пеш				-121.3439	17°	-121.343917°
DWR ID	RD0524U0	1RM40.85				

Comment Code

Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: The erosion was discovered during 2013 spring levee inspection. Inspector comment: Erosion is located along the lower level of water-ward slope. [2017 Site ID:RD0524U01RM40.85]

Photo 1 of 3: SP_2018_RD0524_107_1_20180323_00001.jpg



Close view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.19	Rating **	U	Issue No.		1 (cont)	
LM End	0.19	Issue Type +	Ма	Location *		WS	
Category	ental	GPS La	atitud	le/Longitude			
Calegory						End	
DWR Erosion Survey			37.9390	85 °	37.939085 °		
пеш				-121.3439	17°	-121.343917°	
DWR ID	DWR ID RD0524U01RM40.85						
Comment Code							

Inspector Comment

09/13/2017: No significant change observed. 07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: The erosion was discovered during 2013 spring levee inspection. Inspector comment: Erosion is located along the lower level of water-ward slope. [2017 Site ID:RD0524U01RM40.85]

LM Start	0.19	Rating **	U	Issue No.	1 (cont)
LM End	0.19	Issue Type +	Ma	Location *	WS

Photo 2 of 3: SP_2018_RD0524_107_1_20180323_00002.jpg



Front view of the erosion.

Photo 3 of 3: SP_2018_RD0524_107_1_20180323_00003.jpg



Front view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.21	Rating **	М	Issue No.		3		
LM End	0.21	Issue Type +	Ma	Location *		CR		
Earthen Levee			GPS La	atitud	le/Longitude			
Category				Start		End		
Item Crown Surface / Depressions / Rutting				37.9388	90°	37.938890 °		
				-121.343657 °		-121.343657 °		
DWR ID DWR_RD0524_01_s _ 2016_3								
		Comn	nent Cod	le				
C2 : Repair depressions or ruts in the crown or slope.								
		Inspecto	or Comm	nent				
No change in status.								

Photo 1 of 3	: SP_2018_	KD0524_	107_3_20	180323_0	iuuu8.jpg	
To Am			ga e		War.	
				- Branch		
			er ger			
			A SECTION			
		7				
		1.12	方法			
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 3 3 3				(1)	

Looking west at 3" depression on levee crown. (Spring 2012)

 LM Start
 0.21
 Rating **
 M
 Issue No.
 3 (cont)

 LM End
 0.21
 Issue Type +
 Ma
 Location *
 CR

Photo 2 of 3: SP_2018_RD0524_107_3_20180323_00009.jpg



Looking west at depression on levee crown near waterward shoulder.

LM Start	0.21	Rating **	М	Issue No.	3 (cont)
LM End	0.21	Issue Type +	Ma	Location *	CR



Looking east at 3" depression on levee crown. (Spring 2012)

*Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating

A: Acceptable A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable CR: Corrected U: Unacceptable A/W: Acceptable but Monitor & Maintain Enforcement

** Issue Type

Ma: Maintenance Deficiancy

Ob: Design & System Obsolescence

En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.23	Rating **	U	Issue No.		201	
LM End	0.23	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atituc	de/Longitude	
Calegory			Start		End		
Item	Trim / Thin Trees				48°	37.938648°	
item			-121.3434	80°	-121.343480 °		
DWR ID DWR_RD0524_01_f _ 2016_201							
		Comn	nent Cod	le			
T2: Thin t	rees to allo	ow visibility of	the grou	nd and roo	m to	flood fight.	
Inspector Comment							
Untrimmed trees on waterside slope.							
l .							

noto 1 of 1 : 5P_2018_RD0524_107_201_20180323_00280.jpg
M 38 2007

Looking southeast a the waterside slope.

11100	0.27	Rating **	U	Issue No.		470		
LM Start	0.27	Railiy	U	issue ivo.		179		
LM End	0.27	Issue Type +	Ma	Location *		WS		
Category	Earthen L	evee		GPS La	titud	e/Longitude		
Calegory		Start		End				
Trim / Thin Trees				37.9384	38°	37.938438 °		
пеш			-121.3428	83 °	-121.342883 °			
DWR ID DWR_RD0524_01_s _ 2014_179								
		Comn	nent Cod	le				
T2 : Thin trees to allow visibility of the ground and room to flood fight.								
Inspector Comment								
Tree block	ing view o	f waterside slo	ope.					

LM Start	0.27	Rating **	U	Issue No.	179 (cont)
LM End	0.27	Issue Type +	Ma	Location *	WS



Looking east at untrimmed tree on waterward slope. (Fall 2016)

Photo 2 of 4: SP_2018_RD0524_107_179_20180323_00248.jpg



Looking east at untrimmed tree on waterward slope (Spring 2016)

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.27	Rating **	U	Issue No.	179 (cont)				
LM End	0.27	Issue Type +	Ma	Location *	WS				
Category Earthen Levee			GPS Latitude/Longitude						
			Start		End				
Item	Trim / Thi	n Trees		37.938438 °		37.938438°			
item				-121.342883 °		-121.342883 °			
DWR ID	DWR ID DWR_RD0524_01_s _ 2014_179								
Comment Code									
TO . Thin to	roop to all	ou vioibility of	the areu	nd and room	· +o	flood fight			

T2: Thin trees to allow visibility of the ground and room to flood fight.

Inspector Comment

Tree blocking view of waterside slope.

LM Start	0.27	Rating **	U	Issue No.	179 (cont)
I M End	0.27	Issue Type +	Ma	Location *	WS



Looking west at untrimmed tree on waterward slope. (Spring 2015)

Photo 4 of 4: SP_2018_RD0524_107_179_20180323_00250.jpg



Looking east at untrimmed tree on waterward slope. (Fall 2015)

LM Start	0.30	Rating **	U	Issue No.		174		
LM End	0.32	Issue Type + Ma Location *		Location *		Location *		WS
Category	evee	GPS Latitude/Longitude						
Calegory				Start		End		
Item	Animal Co	ontrol		37.93838	2°	37.938412°		
item				-121.34235	2 °	-121.341917°		
DWR ID DWR_RD0524_01_f _ 2014_174								

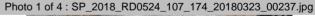
Comment Code

A1: Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment

Several rodent holes present at this site. No change at site during fall 2018 inspection.

Active rodent activity during spring 2017 inspection. No change at site.





Looking southwest at several rodent holes on waterward slope. (Fall 2016)

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.30	Rating **	U	Issue No.		Issue No. 174 (co		174 (cont)		
LM End	0.32	Issue Type +	ssue Type + Ma		Location *		Location *		Location *	
Earthen Levee				GPS Latitude/Longitude						
Category			Start		End					
Item	Animal Co	ontrol		37.938382 °		37.938412				
пеш				-121.3423	52 °	-121.341917				
DWR ID DWR_RD0524_01_f _ 2014_174										
Comment Code										

A1: Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment

Several rodent holes present at this site. No change at site during fall 2018 inspection.

Active rodent activity during spring 2017 inspection. No change at site.

	1	
		3
	. •	
		11/2

Photo 2 of 4: SP_2018_RD0524_107_174_20180323_00238.jpg

Looking southeast at several rodent holes on waterward slope. (Spring 2016)

Photo

Photo 3 of 4: SP_2018_RD0524_107_174_20180323_00239.jpg



Looking west at several rodent holes on waterward shoulder. (Spring 2015)

LM Start	0.30	Rating **	U	Issue No.	174 (cont)
LM End	0.32	Issue Type +	Ma	Location *	WS

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma: Maintenance Deficiancy

Ob: Design & System Obsolescence

En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.30	Rating **	U	Issue No.		174 (cont)	
LM End	0.32	Issue Type +	Ма	Location *		WS	
Earthen Levee				GPS Latitude/Longitude			
Category	alegory					End	
Itom	Animal Co	ontrol		37.93838	32°	37.938412°	
Item			-121.34235	52 °	-121.341917°		
DWR ID DWR_RD0524_01_f _ 2014_174							

Comment Code

A1: Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment

Several rodent holes present at this site. No change at site during fall 2018 inspection.

Active rodent activity during spring 2017 inspection. No change at site.



Looking southeast at several rodent holes on waterward slope. (Fall 2015.

LM Start	0.34	Rating **	М	Issue No.		2	
LM End	0.34	Issue Type +	Ма	Location *	WS		
Category				GPS Latitude/Longitude			
Category			Start		End		
Item	DWR Ero	sion Survey		37.938461 °		37.938461 °	
item				-121.3415	26 °	-121.341526°	
DWR ID RD0524U01RM40.93							
Comment Code							

Inspector Comment

09/13/2017: There are two pocket erosions at the site; both erosions are around 10 ft long and 6 ft high. [2017 Site ID:RD0524U01RM40.93]

LM Start	0.34	Rating **	М	Issue No.	2 (cont)
LM End	0.34	Issue Type +	Ma	Location *	WS

Photo 1 of 4 : SP_2018_RD0524_107_2_20180323_00004.jpg



Front view of the erosion site.

Photo 2 of 4: SP_2018_RD0524_107_2_20180323_00005.jpg



Looking downstream of the erosion.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.34	Rating **	M	Issue No.	2 (cont)			
LM End	0.34	Issue Type +	Ma	Location *		WS		
Category	Suppleme	ental		GPS La	atitud	e/Longitude		
Calegory			Start		End			
Item	DWR Ero	sion Survey		37.938461 ° 37.9				
пеш			-121.341526 °		-121.341526°			
DWR ID	DWR ID RD0524U01RM40.93							
		Comn	nent Cod	le				
	Inspector Comment							
09/13/2017: There are two pocket erosions at the site; both erosions are around 10 ft long and 6 ft high. [2017 Site ID:RD0524U01RM40.93]								

Ма

Issue No.

Location *

Rating **

Issue Type +

0.34

0.34

LM Start

LM End



Photo 3 of 4: SP_2018_RD0524_107_2_20180323_00006.jpg

Close view of the erosion site.

2 (cont) WS



Front view of the erosion.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.40	Rating **	М	Issue No.		5			
LM End	0.40	Issue Type +	Ma	Location *		WS			
Category	Suppleme	ental		GPS La	atitud	e/Longitude			
Calegory				Start		End			
Item	DWR Ero	sion Survey		37.9388	70°	37.938870°			
пеш			-121.3404	60°	-121.340460 °				
DWR ID RD0524U01RM40.99									
Comment Code									
			_						
		Inspecto	or Comm	nent					
09/13/2017	7: No signi	ficant change	observe	ed.					
07/25/2010	6: More ve	getation obse	rved at t	he site.					
06/24/201	5: No signi	ficant change	observe	ed.					
06/19/2014: No significant change observed.									
	08/13/2013: No significant change at this site.								
08/07/2012: The erosion is at the upper levee slope, and likely caused									
	by slope slip. The lower levee slope is covered with dense vegetation.								

[2017 Site ID:RD0524U01RM40.99]

0.40

0.40

LM Start

LM End

Rating **

Issue Type +



Front view of the erosion site.

M Issue No. 5 (cont) Ma Location * WS

Photo 2 of 4: SP_2018_RD0524_107_5_20180323_00012.jpg



Downstream view of the site.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

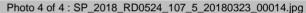
Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.40	Rating **	М	Issue No.		5 (cont)			
LM End	0.40	Issue Type +	Ма	Location *	WS				
Cotogony	Suppleme	ental		GPS L	atitud	e/Longitude			
Category				Start		End			
Item	DWR Ero	sion Survey		37.9388	70°	37.938870°			
пеш				-121.340460 °		-121.340460 °			
DWR ID RD0524U01RM40.99									
Comment Code									
		Inspecto	or Comm	nent					
09/13/201	7: No signi	ficant change	observe	ed.					
07/25/201	6: More ve	getation obse	rved at t	he site.					
06/24/2015: No significant change observed.									
06/19/2014: No significant change observed.									
08/13/2013: No significant change at this site.									
08/07/2012: The erosion is at the upper levee slope, and likely caused									

[2017 Site ID:RD0524U01RM40.99]									
LM Start	0.40	Rating **	М	Issue No.	5 (cont)				
LM End	0.40	Issue Type +	Ма	Location *	WS				

by slope slip. The lower levee slope is covered with dense vegetation.







Close view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.40	Rating **	U	Issue No.		205			
LM End	0.46	Issue Type +	Ма	Location *		LS			
Category	Earthen L	evee		GPS La	atitud	e/Longitude			
Calegory				Start		End			
Item	Erosion /	Bank Caving		37.9386	25°	37.938695 °			
пеш				-121.340479°		-121.339420 °			
DWR ID	DWR ID DWR_RD0524_01_s _ 2016_205								
		Comn	nent Cod	le					
E2 : Sched	dule repair	of erosion site	e prior to	the next in	spe	ction.			
		Inspecto	or Comm	nent					
Several da	maged sit	es within this	reach.						

Ma

Issue No.

Location *

205 (cont)

LS

0.40

0.46

LM Start

LM End

Rating **

Issue Type +

hoto 1 of 2 : SP_20°	18_RD0524_	_107_205_;	20180323_	_00285.jpg
		TIL		
			W. March	
200		100		
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		A CONTRACTOR OF THE PARTY OF TH		
AND SERVICE AND ADDRESS OF THE PARTY OF THE				
1.63.00				
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a alle a				S. Ac
Company of the second				

Looking at slope damage on landward slope.

Photo 2 of 2: SP_2018_RD0524_107_205_20180323_00286.jpg

Looking at slope damage on landward slope.

LM Start	0.41	Rating **	U	Issue No.		170		
LM End	0.45	Issue Type +	Ма	Location *		WS		
Category	Earthen L	evee		GPS L	atitud	e/Longitude		
Calegory			Start		End			
Item	Erosion /	Bank Caving		37.9386	28°	37.938688°		
item				-121.340385 °		-121.339627°		
DWR ID DWR_RD0524_01_s _ 2015_170								
	Comment Code							
E2 : Sched	dule repair	of erosion site	e prior to	the next in	spec	tion.		
Inspector Comment								
Several slope instabilites within this reach.								



Looking at slope damage on waterward shoulder (Spring 2016)

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.41	Rating **	U	Issue No.	170 (cont)			
LM End	0.45	Issue Type +	Ма	Location *	WS			
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Calegory			Start		End			
Erosion / Bank Caving				37.9386	28 °	37.938688°		
-121.34038					85 °	-121.339627°		
DWR ID DWR_RD0524_01_s _ 2015_170								
		Comn	nent Cod	le				
E2 : Schedule repair of erosion site prior to the next inspection.								
Inspector Comment								
Several slope instabilites within this reach.								

Photo 2 of 2 : SP_2018_RD0524_107_17	70_20180323_00234.jpg
A State of the sta	

Looking at waterward slope erosion.

LM Start	0.63	Rating **	U	Issue No.		11			
LM End	0.64	Issue Type +	Ma	Location *		WS			
Category	evee	GPS Latitude/Longitude							
Calegory				Start		End			
Item	Vegetation			37.9382	32°	37.938160°			
пеш				-121.3364	84 °	-121.336357°			
DWR ID DWR_RD0524_01_s _ 2012_11									
	0 10 1								

Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Bamboo on waterside slope.

LM Start	0.63	Rating **	U	Issue No.	11 (cont)
LM End	0.64	Issue Type +	Ma	Location *	WS

Photo 1 of 2 : SP_2018_RD0524_107_11_20180427_00488.jpg



Looking at bamboo on waterward slope. (Spring 2018)

Photo 2 of 2: SP_2018_RD0524_107_11_20180323_00019.jpg



Looking southeast at the waterside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.63	Rating **	М	Issue No.		15	
LM End	0.63	Issue Type +	Ма	Location *	WS		
Category	ental	GPS Latitude/Longitude					
Calegory				Start		End	
Item	DWR Ero	sion Survey		37.93824	۱7°	37.938247°	
пеш				-121.33650)3 °	-121.336503 °	
DWR ID RD0524U01RM41.26							
Comment Code							

Inspector Comment

09/13/2017: The erosion was discovered by levee inspection. The erosion site is immediately downstream of tall vegetations. [2017 Site ID:RD0524U01RM41.26]

LM Start	0.63	Rating **	М	Issue No.	15 (cont)
LM End	0.63	Issue Type +	Ma	Location *	WS



Front view of the erosion. The erosion is located at the shadow of the vegetation.

Photo 2 of 2: SP_2018_RD0524_107_15_20180323_00032.jpg



Front view of the erosion.

LM Start	0.64	Rating **	М	Issue No.		13	
LM End	0.65	Issue Type +	Ма	Location *	WS		
Category Earthen Levee				GPS Latitude/Longitude			
				Start		End	
Item	Slope Stability)5°	37.938023°	
пеш				-121.33628	88°	-121.336173 °	
DWR ID	DWR_RD0	524_01_s _ 201	2_13				
Comment Code							
S1 : Repair slope instability.							

Inspector Comment

Depression extends from shoulder to mid levee slope two site with this section.

Photo 1 of 4: SP_2018_RD0524_107_13_20180323_00024.jpg



Looking southeast at depression on waterward shoulde fall 2015

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.64	Rating **	М	Issue No.		13 (cont)	
LM End	0.65	Issue Type +	Ma	Location *	WS		
	Category Earthen Levee			GPS Latitude/Longitude			
Calegory				Start		End	
Item	Slope Sta	bility		37.9381	05 °	37.938023 °	
item		-121.3362	88 °	-121.336173 [°]			
DWR ID	DWR_RD0	524_01_s _ 201	2_13				

Comment Code

S1: Repair slope instability.

Inspector Comment

Depression extends from shoulder to mid levee slope two site with this section.

LM Start	0.64 Rating **		М	Issue No.	13 (cont)
LM End	0.65	Issue Type +	Ma	Location *	WS



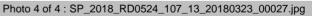
Looking south at erosion on waterside shoulder.

Photo 3 of 4: SP_2018_RD0524_107_13_20180323_00026.jpg



View of the erosion.

LM Start	0.64	Rating **	М	Issue No.	13 (cont)
LM End	0.65	Issue Type +	Ma	Location *	WS





Update view of the erosion site.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.67	Rating **	U	Issue No.	14			
LM End	0.67	Issue Type +	Ма	Location *	WS			
Category	Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End		
Item	Vegetatio	n		37.937808°		37.937808	0	
пеш				-121.335913 °		-121.335913	0	
DWR ID DWR_RD0524_01_s _ 2012_14								
Comment Code								

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Bamboo on waterside slope.



Looking south at dying bamboo on waterward slope. Fall 2015

LM Start	0.70	Rating **	М	Issue No.	16		
LM End	0.70	Issue Type +	Ма	Location *		WS	
Category	Supplemental			GPS Latitude/Longitude			
Calegory			Start		End		
DWR Erosion Surv			on Survey		77°	37.937577°	
пеш				-121.335491 °		-121.335491 °	
DWR ID RD0524U01RM41.34							
Comment Code							

Inspector Comment

09/13/2017: Pocket erosion above the protected levee toe. [2017 Site ID:RD0524U01RM41.34]

LM Start	0.70	Rating **	М	Issue No.	16 (cont)
LM End	0.70	Issue Type +	Ma	Location *	WS

Photo 1 of 4: SP_2018_RD0524_107_16_20180323_00033.jpg



Front view of the erosion.

Photo 2 of 4: SP_2018_RD0524_107_16_20180323_00034.jpg



Close view of the erosion.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.70	Rating **	М	Issue No.		16 (cont)	
LM End	0.70	Issue Type +	Ma	Location *	WS		
Category	Suppleme	ental		GPS La	atituc	le/Longitude	
Calegory				Start		End	
Item	DWR Ero	sion Survey		37.9375	77 °	37.937577°	
пеш				-121.3354	-121.335491 °		
DWR ID RD0524U01RM41.34							
		Comn	nent Cod	de			
		Inspecto	or Comm	nent			
Inspector Comment 09/13/2017: Pocket erosion above the protected levee toe. [2017 Site ID:RD0524U01RM41.34]							

LM Start	0.70	Rating **	M	Issue No.	16 (cont)
LM End	0.70	Issue Type +	Ma	Location *	WS



Looking downstream of the erosion site.

Photo 4 of 4: SP_2018_RD0524_107_16_20180323_00036.jpg



Close view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.70	Rating **	A/W	Issue No.		153		
LM End	0.70	Issue Type +	Ma	Location *				
Category	Supplemental			GPS Latitude/Longitud				
Calegory				Start		End		
Item	2017 Stor	m Damage		37.93750	00°	37.937500°		
пеш				-121.33550	00°	-121.335500 °		
DWR ID DWR_RD0524_01_f _ 2017_153								
	Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:541
Site Designation:LMA-447
Repair Type: Erosion
Rating:Area of Concern
Field Date:8/10/2017

Notes:

LM Start	0.70	Rating **	A/W	Issue No.	153 (cont)
LM End	0.70	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL_SP_2018_541_4080.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.70	Rating **	A/W	Issue No.		153 (cont)			
LM End	0.70	Issue Type +	Ma	Location *					
Category	Supplemental				GPS Latitude/Longitude				
Calegory	gory		Start		End				
Item	2017 Stor	m Damage		37.9375	° 00	37.937500°			
пеш				-121.3355	° 00	-121.335500 °			
DWR ID	R ID DWR_RD0524_01_f _ 2017_153								
	Comment Code								

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:541 Site Designation:LMA-447

Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:

1	80-524 [MA-447]	Son Josquin Ryke Libra
20 mm	8	
Onsignate	15 15	27° W.
-	Scale Rady	

LM Start	0.71	Rating **	М	Issue No.		17			
LM End	0.73	Issue Type +	Ma	Location *	WS				
Category				GPS Latitude/Longitude					
Category		Start		End					
Item	DWR Ero	sion Survey		37.9372	22 °	37.937222°			
item				-121.3352	77 °	-121.335277°			
DWR ID	RD0524U01RM41.36								
	Comment Code								

Inspector Comment

09/13/2017: No significant change observed. 07/25/2016: No significant change observed.

06/24/2015: The erosion site is immediately downstream of the RR

bridge. [2017 Site ID:RD0524U01RM41.36]

Photo 1 of 3: SP_2018_RD0524_107_17_20180323_00037.jpg



Front view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.71	Rating **	М	Issue No.		17 (cont)					
LM End	0.73	Issue Type +	Ma	Location *	WS						
Category	Supplemental			GPS Latitude/Longitude							
Calegory				Start		End					
Item	DWR Ero	sion Survey		37.9372	22 °	37.937222°					
пеш				-121.3352	77 °	-121.335277 °					
DWR ID	RD0524U01RM41.36										
		Comn	nent Cod	Comment Code							

Inspector Comment

09/13/2017: No significant change observed. 07/25/2016: No significant change observed.

06/24/2015: The erosion site is immediately downstream of the RR bridge. [2017 Site ID:RD0524U01RM41.36]

LM Start	0.71	Rating **	М	Issue No.	17 (cont)
LM End	0.73	Issue Type +	Ma	Location *	WS



Close view of the erosion.

Photo 3 of 3: SP_2018_RD0524_107_17_20180323_00039.jpg



Close view of the erosion.

					1	
LM Start	0.72	Rating **	U	Issue No.		157
LM End	0.72	Issue Type +	Ma	Location *		LS
Category	Earthen L	evee		GPS L	atitud	e/Longitude
Odicgory				Start		End
Item	Erosion /	Bank Caving		37.9372	90°	37.937290°
пеш				-121.335417 °		-121.335417°
DWR ID	DWR_RD0	524_01_s _ 201	7_157			
		Comn	nent Coo	le		
		Inspecto	or Comm	nent		
Slope dam	age cause	ed by rain rund	off on lar	ndside slop	е.	



Looking west at slope damage caused by rain runoff on landward slope.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

Ph

LM Start	0.72	Rating **	U	Issue No.		157 (cont)	
LM End	0.72	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Erosion / Bank Caving			37.937290°		37.937290°	
пеш				-121.3354	·17 °	-121.335417 °	
DWR ID	DWR ID DWR_RD0524_01_s _ 2017_157						
		Comn	nent Cod	le			
			_				
		Inspecto	or Comm	ent			
Slope dam	age cause	ed by rain rund	off on lar	dside slope	€.		



Looking south at slope damage caused by rain runoff on landward slope.

LM Start	0.72	Rating **	М	Issue No.		156
LM End	0.72	Issue Type +	Ма	Location *		LS
Category	Earthen L	evee		GPS La	atitud	le/Longitude
Calegory				Start		End
Item	Trim / Thi	n Trees		37.9372	58°	37.937258 °
item				-121.3353	73°	-121.335373 °
DWR ID	DWR_RD0	524_01_s _ 201	7_156			
		Comn	nent Cod	le		
T1: Trim t	rees to at	east five feet	above g	round level.		
			_			
		Inspecto	or Comm	ent		
Dense veg	etation on	landside slop	e.			

noto 1 of 2	: SP_2018_F	RD0524_10	7_156_201	80323_002	219.jpg
					\$
	N. C.				
	小黄龙	-			
作 福 1	AND A			in the	
		一樣的		建筑	
	F			11 08 2017	

Looking southwest at the landside slope.

 LM Start
 0.72
 Rating **
 M
 Issue No.
 156 (cont)

 LM End
 0.72
 Issue Type +
 Ma
 Location *
 LS

Photo 2 of 2 : SP_2018_RD0524_107_156_20180323_00220.jpg



Looking west at dense untrimmed tree on landward slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.72	Rating **	A/W	Issue No.		154
LM End	0.73	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS La	titud	le/Longitude
Calegory				Start		End
Item	2017 Stor	m Damage		37.9372	° 00	37.937100°
пеш				-121.3353	° 00	-121.335300 °
DWR ID	DWR_RD0	524_01_f _ 201	7_154			
		Comn	nent Cod	le		

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:540
Site Designation:LMA-446
Repair Type: Erosion
Rating:Area of Concern
Field Date:8/10/2017

Notes:

 LM Start
 0.72
 Rating **
 A/W
 Issue No.
 154 (cont)

 LM End
 0.73
 Issue Type +
 Ma
 Location *



Photo 2 of 3: LEVAL_SP_2018_540_4088.jpg



N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence
En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.72	Rating **	A/W	Issue No.		154 (cont)
LM End	0.73	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS La	atituc	le/Longitude
Calegory				Start		End
Item	2017 Stor	m Damage		37.9372	00°	37.937100°
пеш				-121.3353	° 00	-121.335300 °
DWR ID	DWR_RD0	524_01_f _ 201	7_154			
		Comn	nent Cod	le		

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:540

Site Designation:LMA-446 Repair Type: Erosion

Rating:Area of Concern Field Date:8/10/2017

Notes:

slopes.

RO-524 [LMA-446]	30' length	Son Joogun River & Book
8 8		
	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAM	100 mapscorp
Compre		
		AM10:17 AUG/10/L017

LM Start	0.75	Rating **	U	Issue No.		262
LM End	0.78	Issue Type +	Ma	Location *		LS
Category Earthen Levee			GPS Latitude/Longitude			
Calegory	Category			Start		End
Item	Vegetatio	n		37.9368	13°	37.936539°
item			-121.3350	19°	-121.334863 °	
DWR ID	DWR_RD0	524_01_s _ 201	2_262			

Comment Code V2 : Remove the wild growth other than native grasses from the levee

Inspector Comment

Dense vegetation at landside toe along fence line.

Photo 1 of 3: SP_2018_RD0524_107_262_20180323_00364.jpg



Looking northeast at the landside slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.75	Rating **	U	Issue No.		262 (cont)	
LM End	0.78	Issue Type +	Ма	Location *	LS		
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Vegetatio	n		37.9368	813°	37.936539°	
item				-121.335019 ° -121.334863			
DWR ID DWR_RD0524_01_s _ 2012_262							
		Comn	nent Cod	le			
V2 : Remo	ve the wild	d growth other	than na	tive grasse	s fro	m the levee	
		Inspecto	or Comm	nent			
Dense veg	etation at	landside toe a	long fen	ce line.			

LM Start	0.75	Rating **	U	Issue No.	262 (cont)
LM End	0.78	Issue Type +	Ма	Location *	LS



Looking west at dense vegetation at landward slope and toe fall 2015.

Photo 3 of 3: SP_2018_RD0524_107_262_20180323_00366.jpg



Looking west at dense vegetation on landside toe. Spring 2014

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.76	Rating **	U	Issue No.		21		
LM End	0.77	Issue Type +	Ma	Location *	WS			
Supplemental				GPS La	atitud	le/Longitude		
Category			Start		End			
Item	DWR Erosion Survey			37.9368	21 °	37.936821 °		
пеш				-121.3345	82 °	-121.334582 °		
DWR ID	RD0524U0	1RM41.39						
		Comn	nent Cod	de				
		La san sa sa ta						

Inspector Comment

09/13/2017: No significant change observed. 07/25/2016: No significant change observed.

06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. No significant change observed.

08/23/2011: The site is located immediately upstream of a Railroad bridge. Dense vegetation at the water line blocks the view of erosion. [2017 Site ID:RD0524U01RM41.39]

LM Start	0.76	Rating **	U	Issue No.	21 (cont)
LM End	0.77	Issue Type +	Ма	Location *	WS



Front view of the erosion site.

Photo 2 of 4: SP_2018_RD0524_107_21_20180323_00049.jpg



Front view of the erosion site. Vegetation is visible.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.76	Rating **	U	Issue No.		21 (cont)	
LM End	0.77	Issue Type +	Ма	Location *		WS	
Category	Suppleme	ental		GPS La	tituc	le/Longitude	
Calegory			Start		End		
Item	DWR Erosion Survey			37.936821 °		37.936821 °	
пеш				-121.33458	2°	-121.334582 °	
DWR ID	RD0524U0	1RM41.39					
Comment Code							

Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed. 06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. No significant change observed.

08/23/2011: The site is located immediately upstream of a Railroad bridge. Dense vegetation at the water line blocks the view of erosion. [2017 Site ID:RD0524U01RM41.39]

LM Start	0.76	Rating **	U	Issue No.	21 (cont)
LM End	0.77	Issue Type +	Ma	Location *	WS



Front view of the erosion.

Photo 4 of 4: SP_2018_RD0524_107_21_20180323_00051.jpg



Front view of the erosion.

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type
Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.78	Rating **	М	Issue No.		935
LM End	0.78	Issue Type +	Ма	Location *		
Category	Suppleme	ental		GPS La	titud	le/Longitude
Calegory				Start		End
Item	DWR UC	IP LMA Respo	onsibility	37.93647	'4 °	37.936474°
пеш				-121.33483	80 °	-121.334830 °
DWR ID						

Comment Code

Inspector Comment

FS_ID:17571 DS ID:20596 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Large hole in pipe at WS toe. Appears abandoned

and should be done so properly.

FIELD STRUCT DESC: 8-inch steel pipe of unknown purpose through the levee, 4 feet below the crown. Pump at the toe of the landside (LS) slope, not found 8/16/13. Siphon breaker in 24-inch corrugated metal riser unit on the waterside (WS) slope. [Additional Reference(s): USACE San Joaquin O&M Manual 7, April 1964, (HLM 0.79)].

FS Date: 8/16/2013

LM Start	0.78	Rating **	М	Issue No.	935 (cont)
LM End	0.78	Issue Type +	Ma	Location *	



Siphon breaker in 24-inch cmp riser on WS slope.

Photo 2 of 2: UCIP_SP_2018_17571_29718.jpg



Large hole in pipe at WS toe.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.78	Rating **	U	Issue No.		76	
LM End	0.78	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.9364	44°	37.936444°	
пеш		-121.334797 °		97° -121.334797°			
DWR ID DWR_RD0524_01_s _ 2012_76							
		Comn	nent Cod	le			
T1: Trim t	rees to at	east five feet	above g	round level			
Inspector Comment							



Looking southwest at low hanging tree branches at landside toe.

LM Start	0.79	Rating **	U	Issue No.	239		
LM End	0.79	Issue Type +	Ma	Location *	WS		
Earthen Levee				GPS La	atitud	le/Longitude	
Category			Start		End		
Item	Animal Control			37.936413°		37.936413 °	
item			-121.334779 °		-121.334779 °		
DWR ID	DWR_RD0	524_01_f _ 201	7_239				
		Comn	nent Cod	de			
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.							
Inspector Comment							



Looking west at the waterside shoulder.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.79	Rating **	М	Issue No.	155		
LM End	0.80	Issue Type +	Ma	Location *			
Category			GPS Latitude/Longitude				
Calegory			Start		End		
Item	2017 Storm Damage			37.936300°		37.936200°	
пеш	tem			-121.3347	00°	-121.334600 °	
DWR ID DWR_RD0524_01_f _ 2017_155							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:538 Site Designation:LMA-444 Repair Type: Erosion Rating:Area of Concern

Field Date:8/10/2017 Notes:

LM Start	0.79	Rating **	М	Issue No.	155 (cont)
LM End	0.80	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL_SP_2018_538_4098.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.79	Rating **	М	Issue No.	155 (cont)		
LM End	0.80	Issue Type +	Ma	Location *			
Supplemental			GPS Latitude/Longitude				
Category			Start		End		
Item	2017 Storm Damage			37.93630	00°	37.936200°	
пеш	item			-121.33470	00°	-121.334600 °	
DWR ID DWR_RD0524_01_f _ 2017_155							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:538

Site Designation:LMA-444 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:

Photo 3 of 3: LEVAL_SP_2018_538_4099.jpg	
人。	
AM10:41 AUG/10/2017	

LM Start	0.83	Rating **	U	Issue No.	22		
LM End	0.84	Issue Type +	Ma	Location *	WS		
Category Supplemental			GPS Latitude/Longitude				
Calegory			Start		End		
Item	DWR Erosion Survey			37.935930°		37.935930 °	
пеш	llem			-121.33413	33 °	-121.334133 °	
DWR ID RD0524U01RM41.44							
Comment Code							

Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: Site was discovered during boat survey. The dense

vegetation blocks a clear view of the erosion. Size of erosion site was very roughly estimated. [2017 Site ID:RD0524U01RM41.44]

Photo 1 of 2: SP_2018_RD0524_107_22_20180323_00052.jpg



Front view of the erosion. The tree and vegetation block the view of the site.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.83 Rating ** U			Issue No.	22 (cont)		
LM End	0.84	0.84 Issue Type + Ma		Location *	WS		
Category	Category Supplemental			GPS Latitude/Longitude			
Calegory					Start		
Item	DWR Ero	sion Survey		37.93593	30°	37.935930	
item					33 °	-121.334133	
DWR ID RD0524U01RM41.44							
Comment Code							

Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: Site was discovered during boat survey. The dense

vegetation blocks a clear view of the erosion. Size of erosion site was very roughly estimated. [2017 Site ID:RD0524U01RM41.44]

Photo 2 of 2: SP_2018_RD0524_107_22_20180323_00053.jpg

Close view of the erosion site.

LM Start	0.90	Rating **	U	Issue No.		149
LM End	0.90	Issue Type +	Ma	Location *	WS	
Category Earthen Levee				GPS La	atitud	e/Longitude
Calegory		Start		End		
Item	Trim / Thi	n Trees		37.9353	19°	37.935319°
пеш				-121.3334	06 °	-121.333406 °
DWR ID DWR_RD0524_01_s _ 2018_149						
		Comp	nent Coc	lo.		

T2: Thin trees to allow visibility of the ground and room to flood fight.

Inspector Comment

Photo 1 of 1: SP_2018_RD0524_107_149_20180427_00489.jpg



Looking southeast at untrimmed trees on waterward slope. (Spring 2018)

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.90	Rating **	A/W	Issue No.	No. 193		
LM End	0.91	Issue Type +	Ma	Location *			
Category	Supplemental				tituc	le/Longitude	
Calegory				Start		End	
Item	2017 Stor	m Damage		37.9354	00°	37.935300°	
пеш				-121.3333	00°	-121.333200 °	
DWR ID DWR_RD0524_01_f _ 2017_193							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:537

Site Designation:LMA-443

Repair Type: Erosion

Rating:Serious

Field Date:8/10/2017

Notes:

LM Start	0.90	Rating **	A/W	Issue No.	193 (cont)
LM End	0.91	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL_SP_2018_537_4103.jpg



N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma: Maintenance Deficiancy

Ob: Design & System Obsolescence

En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.90 Rating ** A/W			Issue No.	193 (cont)				
LM End	0.91 Issue Type + Ma		Location *						
Category	Supplemental			Supplemental			GPS La	atitud	le/Longitude
Calegory						End			
Item	2017 Stor	m Damage		37.9354	00°	37.935300°			
пеш					00°	-121.333200 °			
DWR ID	DWR_RD0524_01_f _ 2017_193								
Comment Code									

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:537

Site Designation:LMA-443

Repair Type: Erosion

Rating:Serious

Field Date:8/10/2017

Notes:



LM Start	0.91	Rating **	A/W	Issue No.		187	
LIVI Start	0.01	_					
LM End		Issue Type +	Ma	Location *			
Category				GPS La	titud	e/Longitude	
Category		Start	End				
Item	2017 Stor	m Damage		37.93558	30°		0
item			-121.33320	00°		0	
DWR ID DWR_RD0524_01_f _ 2017_187							
		Comn	nent Cod	de			

Inspector Comment

Levee Evaluation Comments

Description:

Site ID No:87

Site Designation: DWR_RD0524_01_s_2012_99

Repair Type: Erosion Rating:Area of Concern Field Date:6/7/2017

Notes: no observable defects to levee, vegetation blocks ws toe



Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.91	Rating **	A/W	Issue No.		187 (cont)	
LM End		Issue Type +	Ma	Location *			
Category	Supplemental			GPS Latin	uc	le/Longitude	
Calegory						End	
Item	2017 Stor	2017 Storm Damage			°		0
пеш				-121.333200	°		0
DWR ID	DWR_RD0	524_01_f _ 201	7_187				
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: Site ID No:87

Site Designation: DWR_RD0524_01_s_2012_99

Repair Type: Erosion Rating:Area of Concern Field Date:6/7/2017

Notes: no observable defects to levee, vegetation blocks ws toe

LM Start	0.91	Rating **	A/W	Issue No.	187 (cont)
LM End		Issue Type +	Ma	Location *	



Photo 3 of 3: LEVAL_SP_2018_87_1290.jpg



N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.91	Rating **	U	Issue No.		29	
LM End	0.91	Issue Type +	Ma	Location *	WS		
Supplemental		GPS Latitude/Longitude					
Category				Start		End	
DWR Erosion Survey		37.935576°		37.935576°			
item				-121.333202 °		° -121.333202	
DWR ID RD0524U01RM41.5							
Comment Code							
Inspector Comment							
09/13/2017: No significant change observed.							
07/25/2016: No significant change observed.							
06/24/2015: No significant change observed.							
06/24/2015: No significant change observed. 06/19/2014: No significant change observed.							

08/13/2013: No significant change at this site.
08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: The erosion site is immediately downstream of the riprap protection. [2017 Site ID:RD0524U01RM41.5]

LM Start	0.91	Rating **	U	Issue No.	29 (cont)
LM End	0.91	Issue Type +	Ma	Location *	WS



Front view of the erosion. Note the riprap protection near the site.

Photo 2 of 3: SP_2018_RD0524_107_29_20180323_00063.jpg



Close view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.91	Issue No.		29 (cont)		
LM End	0.91	Issue Type +	Ma	Location * WS		
Supplemental				GPS La	atituc	le/Longitude
Calegory		Start		End		
DWR Erosion Survey				37.935576°		37.935576°
пеш		-121.333202 °		-121.333202 °		
DWR ID RD0524U01RM41.5						
Comment Code						
	Inspector Comment					

09/13/2017: No significant change observed. 07/25/2016: No significant change observed.

06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: The erosion site is immediately downstream of the riprap protection. [2017 Site ID:RD0524U01RM41.5]



Close view of the erosion.

LM Start	0.92	Rating **	U	Issue No.		158
LM End	1.02	Issue Type +	Ma	Location *	LS	
Category	evee	GPS Latitude/Longitude				
Category			Start		End	
Item	ontrol	37.93525	7°	37.934988°		
пеш		-121.33296	9°	-121.331152°		
DWR ID DWR_RD0524_01_s _ 2017_158						·
		0		la.		

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Multiple large rodent holes along this stretch.

No Photos

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.93	Rating **	M	Issue No.		77
LM End	1.01	Issue Type +	Ma	Location *		LS
Category	evee	GPS La	atitud	le/Longitude		
Calegory				Start		End
Item	n Trees		37.9352	59°	37.935049°	
пеш		-121.3328	64°	-121.331334°		
DWR ID DWR_RD0524_01_s _ 2012_77						
Comment Code						
T1 : Trim trees to at least five feet above ground level.						
Inspector Comment						



Looking south at low hanging tree branches at landside toe.

LM Start	0.97	Rating **	М	Issue No.		20	
LM End	0.97	Issue Type +	Ma	Location * WS			
Category	GPS La	atitud	le/Longitude				
Category		Start		End			
Item	Trim / Thi	n Trees	37.9351	81 °	37.935181	0	
пеш				-121.332125 °		-121.332125	0
DWR ID	DWR ID DWR_RD0524_01_f _ 2017_20						
	Comment Code						
T4 : Trim trees over roadway to at least 12 feet above ground level.							
	Inspector Comment						

No Photos

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	0.98	Rating **	A/W	Issue No.		937
LM End	0.98	Issue Type +	Ма	Location *		
Category	Suppleme	ental		GPS Lat	titud	e/Longitude
Calegory				Start		End
Item	DWR UCI	P LMA Respo	onsibility	37.93516	3°	37.935163 °
пеш				-121.33188	7°	-121.331887 °
DWR ID						

Comment Code

Inspector Comment

FS_ID:17575 DS_ID:20598 EP_NO: N/A

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD_STRUCT_DESC: *ABANDONED* 36-inch drainage pipe of an unknown material through the levee, 15 feet below the crown. Landside (LS) end is not visible. Concrete headwall at outlet on the waterside (WS) slope is visible. Pipe appears to be abandoned in place. Slide gate on the WS removed. [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin O&M Manual 7, April 1964, (HLM 0.99)]. FS Date: 8/16/2013

LM Start	0.98	Rating **	A/W	Issue No.	937 (cont)
LM End	0.98	Issue Type +	Ma	Location *	



Concrete headwall visible on WS slope.

Photo 2 of 2: UCIP_SP_2018_17575_29735.jpg



Slide gate removed from headwall on WS slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.00	Rating **	U	Issue No.		30
LM End	1.00	Issue Type +	Ma	Location *		WS
Category	Suppleme	ental		GPS La	atitud	le/Longitude
Calegory				Start		End
Item	DWR Ero	sion Survey		37.9354	10°	37.935410 °
Item				-121.3315	60°	-121.331560 °
DWR ID RD0524U01RM41.58						
Comment Code						
		Inspecto	or Comm	nent		
09/13/2017	7: No signi	ficant change	observe	d.		
07/25/2010	07/25/2016: No significant change observed.					
06/24/2015: No significant change observed.						
06/19/2014: No significant change observed.						
	08/13/2013: No significant change at this site.					
08/07/2012: The erosion was discovered during the boat survey. [2017						
Site ID:RD	0524U01F	RM41.58]				

noto 1 of 4	1: SP_2018	_KD0524_10	07_30_20180	323_00065.j
		à.		

Front view of the erosion.

Photo 2 of 4: SP_2018_RD0524_107_30_20180323_00066.jpg



Close view of the erosion.

LM Start	1.00	Rating **	U	Issue No.	30 (cont)
LM End	1.00	Issue Type +	Ма	Location *	WS

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.00	Rating **	U	Issue No.		30 (cont)		
LM End	1.00	Issue Type +	Ma	Location *		WS		
Category	Suppleme	ental		GPS La	atitud	le/Longitude		
Calegory				Start		End		
Item	DWR Ero	sion Survey		37.9354	10°	37.935410°		
Item		-121		-121.3315	60°	-121.331560 °		
DWR ID	DWR ID RD0524U01RM41.58							
		Comn	nent Cod	le				
		Inspecto	or Comm	nent				
		ficant change						
07/25/2010	6: No signi	ficant change	observe	d.				
		ficant change						
06/19/2014	06/19/2014: No significant change observed.							
08/13/2013: No significant change at this site.								
08/07/2012: The erosion was discovered during the boat survey. [2017								
Site ID:RD0524U01RM41.58]								

Photo 3 of 4: SP_2018_RD0524_107_30_20180323_00067.jp	a
	9

Front view of the erosion.

LM Start 1.00 Rating ** U Issue No. 30 (cont) LM End 1.00 Issue Type + Ma Location * WS

Photo 4 of 4: SP_2018_RD0524_107_30_20180323_00068.jpg



Downstream view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.00	Rating **	A/W	Issue No.		198	
LM End	1.01	Issue Type +	Ма	Location *			
Supplemental			GPS Latitude/Longitude				
Calegory				Start		End	
Itom	2017 Stor	m Damage		37.93510	00°	37.935100°	
Item			-121.33150	00°	-121.331300 °		
DWR ID DWR_RD0524_01_f _ 2017_198							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:536

Site Designation:LMA-442

Repair Type: Erosion

Rating:Area of Concern

Field Date:8/10/2017

Notes: Appears to be previous repair site adjacent to LMA-442. Large

fox den on land side

LM Start	1.00	Rating **	A/W	Issue No.	198 (cont)
LM End	1.01	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL_SP_2018_536_4110.jpg



N : Not Inspected/Rated C : Corrected + Issue Type

Ma : Maintenance Deficiancy

Oh : Design % System Obselve

Ob : Design & System Obsolescence

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.00	Rating **	A/W	Issue No.		198 (cont)
LM End	1.01	Issue Type +	Ma	Location *		
Supplemental			GPS Latitude/Longitude			
Calegory			Start		End	
Item	2017 Stor	m Damage		37.93510	00°	37.935100°
пеш	item				00°	-121.331300°
DWR ID DWR_RD0524_01_f _ 2017_198						·
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:536

Site Designation:LMA-442

Repair Type: Erosion

Rating:Area of Concern

Field Date:8/10/2017 Notes: Appears to be previous repair site adjacent to LMA-442. Large

fox den on land side



LM Start	1.02	Rating **	U	Issue No.		33	
LM End	1.02	Issue Type +	Ma	Location *		WS	
Supplemental				GPS Latitude/Longitude			
Calegory			Start		End		
Itom	DWR Erosion Survey			37.935078°		37.935078°	
Item				-121.33113	34 °	-121.331134°	
DWR ID	RD0524U0	1RM41.59					
Comment Code							

Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. Site has been repaired, but new erosion occurred at the levee slope and immediately upstream of the repaired site.

08/23/2011: The site is about 500 ft downstream of bridge. The levee toe seems to be protected, but the protection is being washed away. [2017 Site ID:RD0524U01RM41.59]

Photo 1 of 3: SP 2018 RD0524 107 33 20180323 00075.jpg



Upstream view of the site.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.02	Rating **	U	Issue No.		33 (cont)
LM End	1.02	Issue Type +	Ма	Location *		WS
Supplemental			GPS Latitude/Longitude			
Category			Start		End	
Itom	DWR Ero	sion Survey		37.93507	78 °	37.935078°
пеш	Item			-121.33113	34 °	-121.331134°
DWR ID	RD0524U0	1RM41.59				
Comment Code						

Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. Site has been repaired, but new erosion occurred at the levee slope and immediately upstream of the repaired site.

08/23/2011: The site is about 500 ft downstream of bridge. The levee toe seems to be protected, but the protection is being washed away. [2017 Site ID:RD0524U01RM41.59]

LM Start	1.02	Rating **	U	Issue No.	33 (cont)
LM End	1.02	Issue Type +	Ma	Location *	WS



Photo 2 of 3: SP_2018_RD0524_107_33_20180323_00076.jpg



Close view of the erosion.

Photo 3 of 3: SP_2018_RD0524_107_33_20180323_00077.jpg



Front view of the site.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.02	Rating **	U	Issue No.		238	
LM End	1.02	Issue Type +	Ма	Location *	LS		
Catagony	Category Earthen Levee			GPS Latitude/Longitude			
Calegory				Start		End	
Itom	Item Animal Control			37.9349	91 °	37.934991 °	
пеш				-121.331160 °		° -121.331160 °	
DWR ID DWR_RD0524_01_f _ 2017_238							
Comment Code							

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Two large rodent holes on landward slope and toe. Large erosion around holes.

LM Start	1.02	Rating **	U	Issue No.	238 (cont)
LM End	1.02	Issue Type +	Ma	Location *	LS



Looking east at large rodent hole on landward slope. (Spring 2018)

Photo 2 of 4: SP_2018_RD0524_107_238_20180427_00492.jpg



Looking southeast at rodent hole on landward slope. (Spring 2018)

LM Start	1.02	Rating **	U	Issue No.	238 (cont)
LM End	1.02	Issue Type +	Ma	Location *	LS



Looking northeast at rodent hole on landward slope. (Spring 2018)

Location Rating + Issue Type LS: Land Side Ma: Maintenance Deficiancy N: Not Inspected/Rated N/A: Not Applicable A: Acceptable WS: Water Side : Minimally Acceptable C: Corrected Ob: Design & System Obsolescence CR: Crown U : Unacceptable A/W : Acceptable but Monitor & Maintain En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

1.02	Rating **	U	Issue No.		238 (cont)		
1.02	Issue Type +	Ма	Location *	LS			
Category Earthen Levee			GPS Latitude/Longitude				
			Start		End		
Animal Control		37.93499	91 °	37.934991	0		
			-121.33116	0 °	-121.331160	0	
DWR ID DWR_RD0524_01_f _ 2017_238							
	1.02 Earthen L Animal Co	1.02 Issue Type + Earthen Levee Animal Control	1.02 Issue Type + Ma Earthen Levee Animal Control	1.02 Issue Type + Ma Location * Earthen Levee GPS La Start Start Animal Control 37.93498 -121.33116	1.02 Issue Type + Ma Location * Earthen Levee GPS Latitud Start Animal Control 37.934991 ° -121.331160 °	1.02 Issue Type + Ma Location * LS Earthen Levee GPS Latitude/Longitude Start End Animal Control 37.934991 ° 37.934991 -121.331160 ° -121.331160	

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Two large rodent holes on landward slope and toe. Large erosion around holes.



Looking northeast at the landside slope.

Photo 1 of 3: SP_2018_RD0524_107_150_20180427_00493.jpg

LM Start	1.04	Rating **	U	Issue No.	150		
LM End	1.04	Issue Type +	Ma	Location *		WS	
Category	Earthen Levee			GPS Latitude/Longitude			
Calegory	Category			Start		End	
Item	Animal Co	ontrol		37.934896°		37.934896°	
item				-121.3307	81 °	-121.330781 °	
DWR ID	DWR_RD0	524_01_s _ 201	8_150				

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Large rodent or beaver or nutria hole on waterward shoulder and crown of levee. Over 2 cubic feet of material was observed beside hole.

		"有人就是	
	, ×	100	
- 69-7			04/24/201
To all a	A Carl	1180	

Looking at close-up view of rodent hole on waterward shoulder. (Spring 2018)

LM Start	1.04	Rating **	U	Issue No.	150 (cont)
LM End	1.04	Issue Type +	Ma	Location *	WS

Photo 2 of 3: SP_2018_RD0524_107_150_20180427_00494.jpg



Looking south at large rodent hole on waterward shoulder. (Spring 2018)

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.04	Rating **	U	Issue No. 150 (cont)			
LM End	1.04	Issue Type +	Ma	Location *	WS		
Category	GPS La	atitud	le/Longitude				
Calegory				Start		End	
Item	Animal Co	ontrol		37.934896°		37.934896	0
пеш				-121.3307	81 °	-121.330781	0
DWR ID DWR_RD0524_01_s _ 2018_150							
Comment Code							

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Large rodent or beaver or nutria hole on waterward shoulder and crown of levee. Over 2 cubic feet of material was observed beside hole.



Looking southeast at large rodent hole on waterward shoulder. (Spring 2018)

LM Start	1.07	Rating **	U	Issue No.	18		
LM End	1.07	Issue Type +	Ма	Location *	LS		
Category	Earthen L	evee	GPS Latitude/Longitude				
Calegory				Start		End	
Item	Slope Sta	bility		37.9347	15 °	37.934715	٥
пеш				-121.3303	43 °	-121.330343	٥
DWR ID DWR_RD0524_01_s _ 2012_18							
Comment Code							

S1 : Repair slope instability.

Inspector Comment

Slope damage extends from shoulder to middle of slope.

LM Start	1.07	Rating **	U	Issue No.	18 (cont)
LM End	1.07	Issue Type +	Ma	Location *	LS

Photo 1 of 2: SP_2018_RD0524_107_18_20180323_00040.jpg



Looking south at caving on landward shoulder. (Fall 2015)



Updated view from above the slope stability.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.12	Rating **	М	Issue No.	171			
LM End	1.16	Issue Type +	Ма	Location *	WS			
Category	Earthen L	evee		GPS La	atitud	le/Longitude		
Calegory				Start		End		
Item	Encroach	ments	37.9342	25°	37.933815 °			
item				-121.3296	-121.329242 °			
DWR ID	DWR_RD0	524_01_s _ 201	5_171					
		Comn	nent Cod	le				
PR : Pruni	ngs							
		Inspecto	or Comm	nent				
Prunings left on waterside shoulder and slope.								



Looking south at prunings on waterward shoulders.

LM Start	1.13	Rating **	М	Issue No.		19	
LM End	1.16	Issue Type +	Ма	Location *		WS	
Category Earthen Levee				GPS La	atitud	e/Longitude	
Calegory						End	
Item	Trim / Thi	n Trees		37.9341	18°	37.933775 °	
iteiii				-121.3296	57°	-121.329305 °	
DWR ID	D DWR_RD0524_01_s _ 2012_19						
	Comment Code						

T1: Trim trees to at least five feet above ground level.

Inspector Comment



Looking southeast at low hanging tree branches at waterside toe.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.15	Rating **	U	Issue No.		44
LM End	1.23	Issue Type +	Ma	Location *		WS
Category	Suppleme	GPS La	atitud	le/Longitude		
Calegory			Start		End	
Item	DWR Ero	sion Survey		37.9333	47°	37.933347°
пеш				-121.3291	10°	-121.329110 °
DWR ID	RD0524U01RM41.79					

Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed. 08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: No significant change observed on site.

09/07/2010: No significant change observed on site. Vegetation is visible at the water line. There is an exposed pipe discharge partially hanging at the mid-slope, possibly still used for discharging irrigation/runoff water. There is minimal rip rap protection along the bank, and what's left of it is no longer adequately protecting the bank. 9/29/2009: Site consists of a 400-foot long eroding bank with minimal vegetation and protection; the existing rip rap has sloughed, rendering it useless; note that there is an exposed section of a pipe. 10/18/2006: There is extensive loss of rip rap on some sections;

sewage disposal pond is on the landside of the levee; there is an exposed pipe outlet "hanging" from the upper slope. [2017 Site ID:RD0524U01RM41.79]

 LM Start
 1.15
 Rating **
 U
 Issue No.
 44 (cont)

 LM End
 1.23
 Issue Type +
 Ma
 Location *
 WS

Photo 1 of 4: SP_2018_RD0524_107_44_20180323_00094.jpg



Direct view of the site.

Photo 2 of 4: SP_2018_RD0524_107_44_20180323_00095.jpg



Direct view of the site.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.15	Rating **		Issue No.		44 (cont)
LM End	1.23	Issue Type +	Ma	Location *		WS
Category	Suppleme	GPS La	atitud	le/Longitude		
Calegory			Start		End	
Item	DWR Ero	sion Survey		37.9333	47°	37.933347°
пеш				-121.3291	10°	-121.329110 °
DWR ID	RD0524U01RM41.79					

Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: No significant change observed on site.

09/07/2010: No significant change observed on site. Vegetation is visible at the water line. There is an exposed pipe discharge partially hanging at the mid-slope, possibly still used for discharging irrigation/runoff water. There is minimal rip rap protection along the bank, and what's left of it is no longer adequately protecting the bank. 9/29/2009: Site consists of a 400-foot long eroding bank with minimal vegetation and protection; the existing rip rap has sloughed, rendering it useless; note that there is an exposed section of a pipe. 10/18/2006: There is extensive loss of rip rap on some sections:

10/18/2006: There is extensive loss of rip rap on some sections; sewage disposal pond is on the landside of the levee; there is an exposed pipe outlet "hanging" from the upper slope. [2017 Site ID:RD0524U01RM41.79]

LM Start	1.15	Rating **	U	Issue No.	44 (cont)
LM End	1.23	Issue Type +	Ma	Location *	WS

Photo 3 of 4: SP_2018_RD0524_107_44_20180323_00096.jpg



View of the erosion.

Photo 4 of 4: SP_2018_RD0524_107_44_20180323_00097.jpg



View of the site. Note the tree near the erosion site.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.16	Rating **	U	Issue No.		915		
LM End	1.23	Issue Type +	Ma	Location *		LS		
Category	evee	GPS La	atitud	le/Longitude				
Calegory				Start		End		
Item	Vegetatio	n		37.9337	75°	37.932784 °		
item		-121.329250 ° -121.328765						
DWR ID DWR_RD0524_01_s _ 2012_915								
		Comn	nent Cod	le				
V2 : Remo slopes.	ve the wild	d growth other	than na	tive grasse	s fro	m the levee		
		Inspecto	or Comm	nent				
Control ve	g at landsi	de toe and be	rm.					



Looking southwest at dense veg at landward toe and berm. (Fall 2016)

LM Start	1.17	Rating **	U	Issue No.		206		
LM End	1.17	Issue Type +	Ма	Location *		LS		
Category	evee	GPS La	atitud	le/Longitude				
Calegory				Start		End		
Item	Trim / Thi	n Trees		37.9335	91 °	37.933591 °		
пеш				-121.3291	54°	-121.329154 °		
DWR ID DWR_RD0524_01_s _ 2016_206								
		Comn	nent Cod	le				
T1: Trim t	rees to at	least five feet	above g	round level				
Inspector Comment								



Looking southwest a untrimmed tree at landward toe. (Spring 2016)

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.18	Rating **	A/W	Issue No.		221		
LM End	1.20	Issue Type +	Ма	Location *				
Catagony	Supplemental			GPS La	tituc	le/Longitude		
Category			Start		End			
Item	2017 Stor	m Damage		37.93350	0°	37.933200°		
item					0°	-121.328900 °		
DWR ID	/R ID							
	Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:535

Site Designation:LMA-441

Repair Type: Erosion

Rating: Area of Concern

Field Date:8/10/2017 Notes:

 LM Start
 1.18
 Rating **
 A/W
 Issue No.
 221 (cont)

 LM End
 1.20
 Issue Type +
 Ma
 Location *



Photo 2 of 3: LEVAL_SP_2018_535_4116.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.18	Rating **	A/W	Issue No.		221 (cont)	
LM End	1.20	Issue Type +	Ma	Location *			
Category				GPS Latitude/Longitude			
Category				Start		End	
Item	2017 Stor	m Damage		37.9335	00°	37.933200°	
пеш				-121.3291	00°	-121.328900 °	
DWR ID	DWR ID DWR_RD0524_01_f _ 2017_221						
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:535

Site Designation:LMA-441

Repair Type: Erosion

Rating:Area of Concern

Field Date:8/10/2017

Notes:



LM Start	1.19	Rating **	A/W	Issue No.		220	
LM End		Issue Type +	Ma	Location *			
Category			GPS Lat	ituc	le/Longitude		
Category		Start		End			
Item	2017 Stor	m Damage		37.93334	7°		0
пеш				-121.32911	0 °		0
DWR ID	DWR_RD0	524_01_f _ 201	7_220				

Comment Code

Inspector Comment

Levee Evaluation Comments

Description:

Site ID No:84

Site Designation:FSRP-13-42

Repair Type: Erosion

Rating:Area of Concern

Field Date:6/7/2017

Notes:



* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

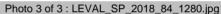
Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.19	Rating **	A/W	Issue No.		220 (cont)				
LM End		Issue Type +	Ма	Location *						
Supplemental			GPS La	atituc	le/Longitude					
Category				Start		End				
Item	2017 Stor	m Damage		37.9333	47°		0			
пеш				-121.3291	10 °		0			
DWR ID	DWR ID DWR_RD0524_01_f _ 2017_220									
		Comn	nent Cod	de						
		Inspecto	or Comm	nent						
Levee Eva	luation Co	mments								
Descriptio	n:									
Site ID No	:84									
Site Designation:FSRP-13-42										
Repair Type: Erosion										
Rating:Area of Concern										
	Field Date:6/7/2017									
Notes:	Notes:									



 LM Start
 1.19
 Rating **
 A/W
 Issue No.
 220 (cont)

 LM End
 Issue Type +
 Ma
 Location *





N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.25	Rating **	A/W	Issue No.	222			
LM End	1.30	Issue Type +	Ma	Location *				
Category				GPS Latitude/Longitude				
Calegory				Start		End		
Item	2017 Stor	m Damage		37.93260	00°	37.931900°		
пеш				-121.32870	00°	-121.328400 °		
DWR ID	DWR_RD0	524_01_f _ 201	7_222			·		
	Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:534

Site Designation:LMA-440

Repair Type: Erosion

Rating:Serious

Field Date:8/10/2017

Notes: site is related to, but not combined with, LMA-439 a portion of this site has been repaired.

LM Start	1.25	Rating **	A/W	Issue No.	222 (cont)
LM End	1.30	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL_SP_2018_534_4122.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.25	Rating **	A/W	Issue No.	222 (cont)			
LM End	1.30	Issue Type +	Ма	Location *				
Category			GPS Latitude/Longitude					
Category			Start		End			
Item	2017 Stor	m Damage		37.932600°		37.931900	0	
пеш				-121.328700 °		-121.328400	0	
DWR ID	DWR_RD0	524_01_f _ 201	7_222					
	Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:534

Site Designation:LMA-440

Repair Type: Erosion

Rating:Serious

Field Date:8/10/2017

Notes: site is related to, but not combined with, LMA-439 a portion of this site has been repaired.



LM Start	1.27	Rating **	A/W	Issue No.	47		
LM End	1.30	Issue Type +	Ма	Location *	WS		
Category			GPS Latitude/Longitude				
Calegory				Start		End	
Item	DWR Ero	sion Survey		37.9318	58°	37.931887	0
ILEIII				-121.328300 °		° -121.328343	
DWR ID	RD0524U0	1RM41.92					
Comment Code							

Inspector Comment

5/17/2018. LM 1.30-1.31 was repaired by DWR the remainder of the site was un

affected.

09/13/2017. The erosion has developed along the levee slope. The length of the erosion is nearly doubled comparing to the prior survey.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: New signs of animal activity were found.

08/07/2012: The site was first reported in 2012 spring levee inspection

report. [2017 Site ID:RD0524U01RM41.92]

Photo 1 of 4: SP 2018 RD0524 107 47 20180323 00105.jpg



Front view of the erosion.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.27	Rating **	A/W	Issue No.	47 (cont)			
LM End	1.30	Issue Type +	Ма	Location *	WS			
Supplemental				GPS Latitude/Longitude				
Category			Start		End			
Item	DWR Ero	sion Survey		37.9318	58°	37.931887		
пеш				-121.32830	00°	-121.328343		
DWR ID	RD0524U0	1RM41.92						
Comment Code								

Inspector Comment

5/17/2018. LM 1.30-1.31 was repaired by DWR the remainder of the site was un affected.

09/13/2017. The erosion has developed along the levee slope. The length of the erosion is nearly doubled comparing to the prior survey.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: New signs of animal activity were found.

08/07/2012: The site was first reported in 2012 spring levee inspection

report. [2017 Site ID:RD0524U01RM41.92]

Photo 2 of 4: SP_2018_RD0524_107_47_20180323_00106.jpg	į
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Front view of the erosion.

LM Start 1.27 Rating ** A/W Issue No. 47 (cont) LM End 1.30 Issue Type + Ma Location * WS

Photo 3 of 4: SP_2018_RD0524_107_47_20180323_00107.jpg



Close view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.27	Rating **	A/W	Issue No.		47 (cont)	
LM End	1.30	Issue Type +	Ма	Location *		WS	
Category	Suppleme	ental		GPS Latitude/Longitude			
Calegory	Salegory			Start		End	
DWR Erosion Survey			37.931858°		37.931887 °		
пеш				-121.328300 °		-121.328343 °	
DWR ID	RD0524U0	1RM41.92					
Comment Code							

Inspector Comment

5/17/2018. LM 1.30-1.31 was repaired by DWR the remainder of the site was un affected.

09/13/2017. The erosion has developed along the levee slope. The length of the erosion is nearly doubled comparing to the prior survey.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed. 08/13/2013: New signs of animal activity were found.

08/07/2012: The site was first reported in 2012 spring levee inspection

report. [2017 Site ID:RD0524U01RM41.92]



Front view of the erosion. Note the worsen erosion next to the protected slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.29	Rating **	U	Issue No.	940	
LM End	1.29	Issue Type +	Ма	Location *		
Category	Suppleme	GPS La	atitud	le/Longitude		
Calegory	egory					End
Item	DWR UCI	P LMA Respo	onsibility	37.9319	77°	37.931977°
пеш				-121.3284	01 °	-121.328401 °
DWR ID						
Comment Code						

Inspector Comment

FS_ID:51319 DS_ID:20602 EP_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: 11/16/2016 same as previous inspection both ends are open. This pipe does not appear in use. Need to contact owner to determine status of crossing. If the crossing is abandoned or in use, owner will need to coordinate with the CVFPB to comply with Title 23 requirements. (O. Magana - DWR UCIP)08/16/2013 Pipe appears to be open on both ends. Abandoned and should be done so properly. (W. Wylie - DWR UCIP)

FIELD_STRUCT_DESC: *ABANDONED* 12-inch steel drainage pipe through the levee, 3.5 feet below the crown. Pipe is opened on the waterside (WS) and landside (LS) ends. The pump house referenced in O&M manual is missing from the LS (2013). [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin O&M Manual 7, April 1964, (HLM 1.31)].
FS Date: 11/16/2016





Pipe visible and open on WS slope.

Photo 2 of 3: UCIP_SP_2018_51319_29861.jpg



Pipe open and visible on LS slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.29	Rating **	U	Issue No.	940 (cont)	
LM End	1.29	Issue Type +	Ma	Location *		
Catagony	Category Supplemental				tituc	le/Longitude
Calegory						End
Item	DWR UC	IP LMA Respo	onsibility	37.93197	77°	37.931977°
пеш				-121.32840)1 °	-121.328401 °
DWR ID						
Comment Code						

Inspector Comment

FS_ID:51319 DS ID:20602 EP_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: 11/16/2016 same as previous inspection both ends are open. This pipe does not appear in use. Need to contact owner to determine status of crossing. If the crossing is abandoned or in use, owner will need to coordinate with the CVFPB to comply with Title 23 requirements. (O. Magana - DWR UCIP)08/16/2013 Pipe appears to be open on both ends. Abandoned and should be done so properly. (W. Wylie - DWR UCIP)

FIELD_STRUCT_DESC: *ABANDONED* 12-inch steel drainage pipe through the levee, 3.5 feet below the crown. Pipe is opened on the waterside (WS) and landside (LS) ends. The pump house referenced in O&M manual is missing from the LS (2013). [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin O&M Manual 7, April 1964, (HLM 1.31)]. FS Date: 11/16/2016

Photo 3 of 3: UCIP_SP_2018_51319_29860.jpg



Pipe appears open on both ends. View from LS slope.

Rating ** Issue No. 1.30 C 223 Issue Type + Ма Location * 1.31 Supplemental GPS Latitude/Longitude Start End 2017 Storm Damage 37.931860° 37.931690 ° -121.328310° -121.328280 ° DWR ID DWR_RD0524_01_f _ 2017_223

Comment Code

Inspector Comment

Levee Evaluation Comments

Description: Site ID No:85

LM Start

LM End

Category

Item

Site Designation: DWR_RD0524_01_s_2012_21

Repair Type: Erosion Rating:Critical

Field Date:6/7/2017 Notes: fox den inside erosion site No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.31	Rating **	С	Issue No.		224	
LM End	1.31	Issue Type +	Ma	Location *			
Category				GPS Latitude/Longitud			
Calegory				Start		End	
Item	2017 Stor	m Damage		37.93180	0°	37.931700	0
пеш				-121.32830	0°	-121.328300	0
DWR ID	DWR_RD0	524_01_f _ 201	7_224				

No Photos

Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:533

Site Designation:LMA-439

Repair Type: Erosion

Rating:Critical

Field Date:8/10/2017

Notes: site was combined with LMA-440 in the field, but seperated again in senior review since LMA-239 has worse damage.

LM Start	1.33	Rating **	A/W	Issue No.		225	
LM End	1.33	Issue Type +	Ма	Location *			
Category				GPS Latitude/Longitude			
Calegory				Start		End	
Item	2017 Stor	m Damage		37.93150	°	37.931500	0
item		-121.328200	°	-121.328200	0		
DWR ID	DWR_RD0	524_01_f _ 201	7_225				

Comment Code

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:532

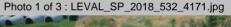
Site Designation:LMA-438

Repair Type: Erosion

Rating:Area of Concern

Field Date:8/10/2017

Notes:





* Location ** Rating		** Rating		+ Issue Type
	LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
	WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
	CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.33	Rating **	A/W	Issue No.	225 (cont)	
LM End	1.33	Issue Type +	Ма	Location *		
Category	Supplemental				tituc	le/Longitude
Category				Start		End
Item	2017 Stor	m Damage		37.9315	00°	37.931500°
пеш				-121.3282	00°	-121.328200 °
DWR ID	DWR_RD0524_01_f _ 2017_225					
	Comment Code					

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:532 Site Designation:LMA-438 Repair Type: Erosion Rating:Area of Concern

Field Date:8/10/2017 Notes:

LM Start	1.33	Rating **	A/W	Issue No.	225 (cont)
LM End	1.33	Issue Type +	Ma	Location *	



Photo 3 of 3: LEVAL_SP_2018_532_4174.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

WS

LM Start	1.33	Rating **	М	Issue No.	55			
LM End	1.33	Issue Type +	Ma	Location *		WS		
Category	Suppleme	ental		GPS La	S Latitude/Longitude			
Calegory		Start		End				
Item	DWR Ero	37.9315	10°	37.931510°				
item				-121.328120 °		° -121.328120 °		
DWR ID	RD0524U0	1RM41.95						
		Comn	nent Cod	le				
	Inspector Comment							
09/13/2017	09/13/2017: The erosion is located immediately upstream of a protected							

 LM Start
 1.33
 Rating **
 M
 Issue No.
 55 (cont)

Ma

Location '

levee section. [2017 Site ID:RD0524U01RM41.95]

Issue Type +

LM End

1.33



Front view of the erosion.

Photo 2 of 2: SP_2018_RD0524_107_55_20180323_00118.jpg



Front view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.39	Rating **	U	Issue No.		56			
LM End	1.39	Issue Type +	Ма	Location *		WS			
Category	Suppleme	ental		GPS La	atitud	le/Longitude			
Category				Start		End			
Item	DWR Ero	sion Survey		37.9305	75°	37.930575 °			
item				-121.3280	90°	-121.328090 °			
DWR ID RD0524U01RM42.03									
Comment Code									
		Inspecto	or Comm	nent					
09/13/2017	7: No signi	ficant change	observe	d					
07/25/2016	6: No signi	ficant change	observe	d					
06/24/2015	5: No signi	ficant change	observe	d.					
06/19/2014	4: No signi	ficant change	observe	d.					
08/13/2013: No significant change observed.									
08/07/2012: The site was first reported in 2012 spring levee inspection									
report. The site is located about 750 ft downstream of SR 4 Bridge.									
[2017 Site ID:RD0524U01RM42.03]									

U

Ма

Rating **

Issue Type +

LM Start

LM End

1.39

1.39

no.	to 1 of 3 : SP_	_2018_RD0524_	107_56_2018	0323_00119).jpg
		AND TO			

Front view of the erosion.

56 (cont) WS

Photo 2 of 3: SP_2018_RD0524_107_56_20180323_00120.jpg



Front view of the erosion.

		Frank view of
		Front view of

Issue No.

Location *

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.39	Rating **	U	Issue No.	56 (cont)		
LM End	1.39	Issue Type +	Ма	Location *	WS		
Supplemental				GPS Latitude/Longitude			
Category			Start		End		
Item	DWR Ero	sion Survey		37.9305	75 °	37.930575°	
item				-121.3280	90°	-121.328090 °	
DWR ID	RD0524U01RM42.03						
	Comment Code						

Inspector Comment

09/13/2017: No significant change observed 07/25/2016: No significant change observed

06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The site was first reported in 2012 spring levee inspection report. The site is located about 750 ft downstream of SR 4 Bridge.

[2017 Site ID:RD0524U01RM42.03]



Close view of the erosion.

LM Start	1.43	Rating **	A/W	Issue No.		226
LM End	1.44	Issue Type +	Ma	Location *		
Category	Suppleme	GPS La	titud	e/Longitude		
Calegory			Start		End	
Item	2017 Stor	m Damage		37.93010	00°	37.929900°
пеш				-121.32830	00°	-121.328300 °
DWR ID	DWR_RD0	524_01_f _ 201	7_226			

Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:530

Site Designation:LMA-436

Repair Type: Erosion

Rating: Area of Concern

Field Date:8/10/2017

Notes:



Rating A : Acceptable : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C: Corrected

A/W : Acceptable but Monitor & Maintain

Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

Issue Type

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.43	Rating **	A/W	Issue No.	226 (cont)		
LM End	1.44	Issue Type +	Ма	Location *			
Category				GPS Latitude/Longitude			
Calegory			Start		End		
Item	2017 Stor	m Damage	n Damage		00°	37.929900°	
item				-121.3283	00°	-121.328300 °	
DWR ID	R ID DWR_RD0524_01_f _ 2017_226						
	Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:530 Site Designation:LMA-436 Repair Type: Erosion Rating: Area of Concern Field Date:8/10/2017

Notes:

LM Start	1.43	Rating **	A/W	Issue No.	226 (cont)
LM End	1 44	Issue Type +	Ma	Location *	







N: Not Inspected/Rated C: Corrected A/W : Acceptable but Monitor & Maintain + Issue Type Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.45	Rating **	U	Issue No.		60	
LM End	1.47	Issue Type +	Ma	Location *		WS	
Category	Suppleme	ental		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	DWR Ero	sion Survey		37.9296	50°	37.929650 °	
пеш				-121.3281	10°	-121.328110 °	
DWR ID	RD0524U0	1RM42.09					
Comment Code							
		Inspecto	or Comm	nent			
Inspector Comment 09/13/2017: No significant change observed. 07/25/2016: No significant change observed. 06/24/2015: No significant change observed. 06/19/2014: No significant change observed. 08/13/2013: The site is located approximately 400 ft. downstream SR 4 Bridge. Dense vegetation is visible at the toe. [2017 Site ID:RD0524U01RM42.09]							

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Photo 1 of 4: SP_2018_RD0524_107_60_20180323_00126.jpg

Front view of the erosion site.

LM Start 1.45 Rating ** U Issue No. 60 (cont) LM End 1.47 Issue Type + Ma Location * WS

Photo 2 of 4: SP_2018_RD0524_107_60_20180323_00127.jpg



Front view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.45	Rating **	U	Issue No.		60 (cont)	
LM End	1.47	Issue Type +	Ma	Location *		WS	
Category	Suppleme	ental		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	DWR Ero	sion Survey		37.9296	50°	37.929650°	
item			-121.328110 °		-121.328110 °		
DWR ID RD0524U01RM42.09							
Comment Code							
		Inspecto	or Comm	nent			
09/13/201	7: No signi	ficant change	observe	d.			
07/25/201	6: No signi	ficant change	observe	ed.			
06/24/201	06/24/2015: No significant change observed.						
06/19/2014: No significant change observed.							
08/13/2013: The site is located approximately 400 ft. downstream SR 4							
Bridge. Dense vegetation is visible at the toe. [2017 Site							

Photo 3 of 4 : SP_2018_RD0524_107_60_20180323_00128.jpg
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Close view of the erosion. Note the vegetation at the site.

LM Start 1.45 Rating ** U Issue No. 60 (cont) LM End 1.47 Issue Type + Ma Location * WS

ID:RD0524U01RM42.09]

Photo 4 of 4: SP_2018_RD0524_107_60_20180323_00129.jpg



Close view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.49	Rating **	U	Issue No.		916	
LM End	1.49	Issue Type +	Ма	Location *		LS	
Cotogon/ Earthen Levee			GPS Latitude/Longitude				
Calegory	Category		Start		End		
Trim / Thin Trees			37.929118°		37.929118°		
Item				-121.328368 °		-121.328368 °	
DWR ID DWR_RD0524_01_s _ 2012_916							
Comment Code							

Comment Code

T3: Trim and thin trees to allow visibility of the ground and room to flood fight.

Inspector Comment

Untrimmed trees and dense vegetation on landside toe.



Looking at dense trees on landward slope and toe fall 2015

LM End 1.55	Issue Type +	Ма	Location *		WS	
Conthou					WS	
Category Earthen Levee			GPS Latitude/Longitude			
			Start		End	
ltem Erosion	Erosion / Bank Caving			91 °	37.928391 °	
item		-121.328273 °		-121.328273 °		
DWR ID DWR_RD0524_01_f _ 2016_202						

Comment Code

E2: Schedule repair of erosion site prior to the next inspection.

Inspector Comment

Large hole (looks like fences post or telephone pole) on waterside shoulder.

LM Start	1.55	Rating **	U	Issue No.	202 (cont)
LM End	1.55	Issue Type +	Ma	Location *	WS

Photo 1 of 2: SP_2018_RD0524_107_202_20180323_00281.jpg



Looking at hole on waterward shoulder.

Photo 2 of 2: SP_2018_RD0524_107_202_20180323_00282.jpg



Looking at large hole (Fence/telephone post hole) on waterward shoulder.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.56	Rating **	U	Issue No.		62	
LM End	1.62	Issue Type +	Ma	Location *		WS	
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR Erosion Survey			37.9277	70°	37.927770°	
пеш				-121.32787	70°	-121.327870 °	
DWR ID	RD0524U0	1RM42.2					

Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: No significant change observed on site. Trees concerned still in place.

09/07/2010: No significant change observed on site. The concern here is the undermining of the levee toe where most of trees are. There are erosion pockets lined along the lower slope and at the base of the trees, exposing tree roots. There is minimal slope protection. 09/29/2009: The lower slope is lined with minor erosion pockets; some tree roots are exposed; there is visible undermining of the levee toe; site is immediately upstream of the Highway 4 Bridge; the bridge is possibly causing a scour to occur, eroding the bank. [2017 Site ID:RD0524U01RM42.2]

LM Start	1.56	Rating **	U	Issue No.	62 (cont)
LM End	1.62	Issue Type +	Ma	Location *	WS

Photo 1 of 3: SP_2018_RD0524_107_62_20180323_00131.jpg



Front view of the site where undermining has occurred.

Photo 2 of 3: SP_2018_RD0524_107_62_20180323_00132.jpg



Close view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.56	Rating **	U	Issue No.		62 (cont)
LM End	1.62	Issue Type +	Ма	Location *		WS
Category	Supplemental			GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR Erosion Survey			37.92777	0 °	37.927770°
пеш				-121.32787	0 °	-121.327870°
DWR ID	RD0524U0	1RM42.2				

Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: No significant change observed on site. Trees concerned still in place.

09/07/2010: No significant change observed on site. The concern here is the undermining of the levee toe where most of trees are. There are erosion pockets lined along the lower slope and at the base of the trees, exposing tree roots. There is minimal slope protection.

09/29/2009: The lower slope is lined with minor erosion pockets; some tree roots are exposed; there is visible undermining of the levee toe; site is immediately upstream of the Highway 4 Bridge; the bridge is possibly causing a scour to occur, eroding the bank. [2017 Site ID:RD0524U01RM42.2]

Photo 3 of 3: SP_2018_RD0524_107_62_20180323_00133.jpg



Front view of the erosion. Dense vegetation is visible.

LM Start	1.58	Rating **	U	Issue No.		173
LM End	1.58	Issue Type +	Ma	Location *		LS
Category	Earthen Levee			GPS Latitude/Longitude		le/Longitude
Calegory	Calegory					End
Item	Trim / Thin Trees			37.92797	75°	37.927975°
пеш				-121.32808	88°	-121.328088 °
DWR ID	DWR_RD0524_01_s _ 2015_173					

Comment Code

T1: Trim trees to at least five feet above ground level.

Inspector Comment

Tree is located on landside shoulder and crown should be removed.

Photo 1 of 1: SP_2018_RD0524_107_173_20180323_00236.jpg



Looking northwest at tree on within levee crown.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.59	Rating **	U	Issue No.		151
LM End	1.61	Issue Type +	Ма	Location * LS		LS
Catagony	evee		GPS La	atitud	le/Longitude	
Category				Start		End
Item	Animal Control			37.927680°		37.927512°
пеш	-121.328004 ° -121.327					-121.327815 °
DWR ID DWR_RD0524_01_s _ 2018_151						
	Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.						
Inspector Comment						
Several large rodent holes on landward slope.						

noto 1 of 2	: SP_2018_I	RD0524_	107_151_	20180427_	_00496.jpg
		4		Al	
					rode
			1	00.000.000	
				C4/24/20	110
12 7 7 7 8	The second section		-	图 原列 医原则	200

Looking at close-up view of large rodent hole on landward slope. (Spring 2018)

LM Start	1.59	Rating **	U	Issue No.	151 (cont)
LM End	1.61	Issue Type +	Ma	Location *	LS

Photo 2 of 2: SP_2018_RD0524_107_151_20180427_00497.jpg



Looking east at large rodent hole on landward slope. (Spring 2018)

LM Start	1.59	Rating **	М	Issue No.	136	
LM End	1.59	Issue Type +	Ma	Location *	CR	
Category	Earthen Levee			GPS Latitude/Longitude		
Calegory	egory			Start		End
Item	Slope Stability			37.9277	75°	37.927775°
item	•			-121.32786	60°	-121.327860 °
DWR ID DWR_RD0524_01_s _ 2013_136						
Comment Code						
S2 : Repair the levee slope damaged by foot traffic and prevent access						

S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.

Inspector Comment

Waterside shoulder caving.



Looking south at depression on levee crown near wateward shoulder.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.60	Rating **	U	Issue No.		25		
LM End	1.61	Issue Type +	Ма	Location *	WS			
Earthen Levee				GPS La	titud	e/Longitude		
Calegory	Category					End		
Item	Vegetatio	n		37.927635°		37.927540°		
пеш					12 °	-121.327648°		
DWR ID	DWR_RD0	524_01_s _ 201	2_25					
Comment Code								
V2 : Remo	ve the wild	d growth other	than na	tive grasses	fro	m the levee		

slopes.

Inspector Comment

LM Start	1.60	Rating **	U	Issue No.	25 (cont)
LM End	1.61	Issue Type +	Ма	Location *	WS



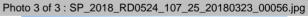
Looking northwest at dense veg on waterward slope.

Photo 2 of 3: SP_2018_RD0524_107_25_20180323_00055.jpg



Looking northwest at end of dense veg on waterward slope.

LM Start	1.60	Rating **	U	Issue No.	25 (cont)
LM End	1.61	Issue Type +	Ma	Location *	WS





Looking southwest at dense veg on waterward slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.62	Rating **	M	Issue No.		26	
LM End	1.64	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Category				Start		End	
Item	Erosion / I	Bank Caving		37.9275	07°	37.927295°	
пеш			-121.327593 °		-121.327298°		
DWR ID	DWR_RD0	524_01_s _ 201	2_26				
		Comm	nent Cod	le			
E1 : Note a	and monito	or erosion site	•				
		Inspecto	or Comm	nent			
Several erosions along this reach.							

Photo 1 of 3	: SP_2018_	_RD0524_	107_26_20	0180323_00057	7.jpg

Looking south at waterward erosion.

LM Start 1.62 Rating ** M Issue No. 26 (cont) LM End 1.64 Issue Type + Ma Location * WS

Photo 2 of 3: SP_2018_RD0524_107_26_20180323_00058.jpg



Looking east at waterward erosion.

LM Start	1.62	Rating **	М	Issue No.	26 (cont)
LM End	1.64	Issue Type +	Ma	Location *	WS

Photo 3 of 3: SP_2018_RD0524_107_26_20180323_00059.jpg



Looking east at waterward erosion and depression.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.65	Rating **	N	Issue No.		8		
LM End	1.68	Issue Type +	Ma	Location *		WS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Calegory		Start		End				
Item	Trim / Thi	n Trees		37.9272	55°	37.926855		
пеш				-121.327137 °		-121.326672		
DWR ID	DWR_RD0	524_01_s _ 201	2_8					
		Comn	nent Cod	le				
T5 : Tree s	stumps.							
		Inspecto	or Comm	nent				
Several tre	Several tree stumps on waterside shoulder.							

No Photos

LM Start	1.66	Rating **	М	Issue No.		240	_
LIVI Start	-						-
LM End	1.66	Issue Type +	Ма	Location *		LS	
Category	Earthen Levee				atitud	le/Longitude	
Odlogory			Start		End		
Item	Encroach	ments		37.9271	59°	37.927159	0
пеш				-121.3270	22 °	-121.327022	0
DWR ID DWR_RD0524_01_f _ 2017_240							
Comment Code							

TR: Tree or limb

Inspector Comment



Looking southeast at the landside slope.

LM Start	1.67	Rating **	U	Issue No.		45	
LM End	1.67	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Encroach	ments		37.9270	18°	37.927018 °	
пеш	-121.326872 ° -121.326872						
DWR ID	DWR_RD0	524_01_s _ 201	2_45				
		Comn	nent Coo	le			
ST : Stairw	vay						
Inspector Comment							
Stairs and retaining wall.							



Looking northeast at non-permitted concrete stairs on waterside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.67	Rating **	U	Issue No.	45 (cont)		
LM End	1.67	Issue Type +	Ма	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Category				Start		End	
Item	Encroach	ments		37.9270	18°	37.927018°	
пеш				-121.3268	72 °	-121.326872 °	
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_45						
		Comn	nent Cod	le			
ST : Stairw	<i>ı</i> ay						
		Inspecto	or Comm	nent			
Stairs and	retaining v	vall.					

Ma

Issue No.

Location 3

1.67

1.67

LM Start

LM End

Rating **

Issue Type +

Photo 2 of 3 : SP_2018	3_KD0524_10	/_45_2018034	23_00099.jpg	
			our constant	

Looking southwest at retaning wall connected to concrete stairs.

45 (cont)

WS

Photo 3 of 3: SP_2018_RD0524_107_45_20180323_00100.jpg



Looking west at concrete stairs on waterside slope.

LM Start	1.68	Rating **	М	Issue No.		242			
LM End	1.68	Issue Type +	Ма	Location *		LS			
Catagony	Earthen L	evee		GPS La	atitud	e/Longitude			
Category				Start		End			
Item	Encroach	ments		37.9269	17°	37.926917 °			
Item				-121.3267	28°	-121.326728 °			
DWR ID	DWR_RD0	524_01_f _ 201	7_242						
		Comn	nent Cod	le					
TR : Tree	or limb								
		Inspecto	or Comm	nent					

No Photos

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.69	Rating **	М	Issue No.		27	
LM End	1.70	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Slope Sta	bility	37.9267	'28	37.926730°		
пеш		-121.326597 ° -121.32650					
DWR ID DWR_RD0524_01_s _ 2012_27							
		Comn	nent Cod	le			
S1 : Repai	ir slope ins	tability.					
		Inspecto	or Comm	nent			
Slope damage several feet long and greater than one inch deep.							

hoto 1 of 1	I: SP_2018	3_RD0524 ₋	_107_27_20	J180323_C	00060.jpg	
					€ . V	
					· North Andrews	
		, 45			r	

Looking south at landward slope drepression.

1.71	Rating **	U	Issue No.		243
1.72	Issue Type +	Ma	Location *		WS
Category Earthen Levee					le/Longitude
					End
Vegetatio	n		37.9266	38°	37.926471 °
-121.326374 ° -121.326					-121.326175°
DWR ID DWR_RD0524_01_f _ 2017_243					
	Earthen L	Earthen Levee Vegetation	Earthen Levee Vegetation	Earthen Levee GPS La Start Vegetation 37.9266 -121.3263	Earthen Levee GPS Latitud Start Vegetation 37.926638 ° -121.326374 °

Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment



Looking southeast at the waterside slope.

LM Start	1.73	Rating **	U	Issue No.		244	
LM End	1.75	Issue Type +	Ма	Location *		WS	
Category	Earthen L	Earthen Levee			GPS Latitude/Longitude		
Calegory				Start		End	
Item	Vegetatio	n		37.9263	95 °	37.926191 °	
пеш			-121.3261	25 °	-121.325952 °		
DWR ID DWR_RD0524_01_f _ 2017_244							

Comment Code

 $\ensuremath{\mathsf{V2}}$: Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment



Looking southeast at the waterside slope.

* Location		*
LS: Land Side	N/A: Not Applicable	
WS: Water Side	**	
CR : Crown		

** Rating

A: Acceptable

M: Minimally Acceptable

U: Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence
En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.73	Rating **	U	Issue No.		245		
LM End	1.75	Issue Type +	Ма	Location *		LS		
Category	Earthen Levee			GPS La	atitud	e/Longitude		
Calegory				Start		End		
ltem Vegeta		Vegetation			12°	37.926093 °		
пеш			-121.326065 °		-121.325864 °			
DWR ID	DWR_RD0	524_01_f _ 201	7_245					
		Comn	nent Cod	le				
V2 : Remove the wild growth other than native grasses from the levee slopes.								
Inspector Comment								



Looking southeast at the landside slope.

LM Start	1.75	Rating **	U	Issue No.	46		
LM End	1.76	Issue Type +	Ma	Location *	LS		
Category	Earthen Levee			GPS Latitude/Longitude			
Calegory						End	
Item	Encroach	ments		37.9261	52°	37.925993 °	
пеш				-121.3259	27 °	-121.325777 °	
DWR ID DWR_RD0524_01_s _ 2012_46							
Comment Code							

TR: Tree or limb

Inspector Comment

Downed tree limbs on landside slope.

LM Start	1.75	Rating **	U	Issue No.	46 (cont)
LM End	1.76	Issue Type +	Ma	Location *	LS

Photo 1 of 4: SP_2018_RD0524_107_46_20180323_00101.jpg



Looking south at tree limbs on landward slope.

Photo 2 of 4: SP_2018_RD0524_107_46_20180323_00102.jpg



Looking southwest at tree limbs on landward slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.75	Rating **	U	Issue No.		46 (cont)
LM End	1.76	Issue Type +	Ma	Location *		LS
Category	Earthen L	evee		GPS La	atitud	le/Longitude
Category			Start		End	
ltem Encroachments				37.9261	52°	37.925993 °
item	item				27 °	-121.325777 °
DWR ID DWR_RD0524_01_s _ 2012_46						
Comment Code						
TR : Tree or limb						
		Inspecto	or Comm	nent		
Downed tree limbs on landside slope.						

Photo 3 of 4 : SP_2018_RD0524_107_46_20180323_00103.jpg

Looking south at tree limbs on landward slope.

 LM Start
 1.75
 Rating **
 U
 Issue No.
 46 (cont)

 LM End
 1.76
 Issue Type +
 Ma
 Location *
 LS

Photo 4 of 4: SP_2018_RD0524_107_46_20180323_00104.jpg



Looking southwest at dense vegetation and low hanging tree branches on landside slope and toe.

LM Start	1.94	Rating **	М	Issue No.	159			
LM End	1.95	Issue Type +	Ма	Location *		WS		
Category	evee		GPS La	atitud	e/Longitude			
Category		Start		End				
Slope Stability				37.9237	03°	37.923645		
item				-121.324238 °		-121.324233		
DWR ID	DWR ID DWR_RD0524_01_s _ 2017_159							
		Comn	nent Coc	le				
S1 : Repair slope instability.								
		Inspecto	or Comm	nent				
Minor sloughing and cracking.								



Looking at minor cracking and sloughing on waterward slope.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

-									
LM Start	1.94	Rating **	М	Issue No.		246			
LM End	1.94	Issue Type +	Ma	Location *		LS			
Category	Earthen L	evee		GPS La	atitud	e/Longitude			
Calegory				Start		End			
Item	Trim / Thi	n Trees		37.9236	92°	37.923692°			
пеш				-121.3242	25 °	-121.324225 °			
DWR ID	DWR ID DWR_RD0524_01_f _ 2017_246								
		Comn	nent Cod	le					
T1: Trim t	rees to at l	east five feet	above g	round level.					
	Inspector Comment								

No Photos

LM Start	1.94	1.94 Rating ** U		Issue No.	176		
LM End	1.94	Issue Type +	Ма	Location *	tion * LS		
Category	Earthen L	evee	GPS Latitude/Longitude				
Calegory				Start	End		
Item	Erosion /	Bank Caving		37.92368	8 °	37.923688	0
пеш		-121.32422	3°	-121.324223	0		
DWR ID DWR_RD0524_01_s _ 2015_176							
Comment Code							

E2: Schedule repair of erosion site prior to the next inspection.

Inspector Comment

Landside caving (3 x 18" x 5) caused by broken sprinklers.





Looking west at erosion within landscaping on landward shoulder and slope.

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	1.94	Rating **	U	Issue No.		176 (cont)
LM End	1.94	Issue Type +	Ма	Location *		LS
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Calegory				Start		End
Item	Erosion /	Bank Caving		37.9236	88°	37.923688°
пеш				-121.324223 °		-121.324223 °
DWR ID DWR_RD0524_01_s _ 2015_176						
		Comn	nent Cod	le		
E2 : Sched	dule repair	of erosion site	e prior to	the next in	spe	ction.
		Inspecto	or Comm	ent		
Landside caving (3 x 18" x 5) caused by broken sprinklers.						



Looking east at erosion within landscaping on landward slope and shoulder.

LM Start	2.25	Rating **	U	Issue No.		31
LM End	2.25	Issue Type +	Ма	Location *		WS
Category	Earthen L	evee	GPS Latitude/Longitude			
Calegory				Start		End
Item	Slope Sta	bility		37.9204	93 °	37.920493
-121.320565 ° -121.320565						
DWR ID DWR_RD0524_01_s _ 2012_31						
		_				

Comment Code

S1: Repair slope instability.

Inspector Comment

Slope instability probably cause by leak in irrigation pipe. Pipe should be inspected internally.

LM Start	2.25	Rating **	U	Issue No.	31 (cont)
LM End	2.25	Issue Type +	Ma	Location *	WS

Photo 1 of 4: SP_2018_RD0524_107_31_20180323_00069.jpg



Looking northwest at waterside slope.

Photo 2 of 4: SP_2018_RD0524_107_31_20180323_00070.jpg



Looking south at siphon on waterward slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.25	Rating **	U	Issue No.		31 (cont)		
LM End	2.25 Issue Type + Ma Location * W		WS					
Category Earthen Levee GPS Latitude/Longitude								
Calegory	Start End							
Item	Slope Stability 37.920493 ° 37.92049							
пеш				-121.3205	65 °	-121.320565 °		
DWR ID DWR_RD0524_01_s _ 2012_31								
Comment Code								

S1 : Repair slope instability.

Inspector Comment

Slope instability probably cause by leak in irrigation pipe. Pipe should be inspected internally.

LM Start	2.25	Rating **	U	Issue No.	31 (cont)
LM End	2.25	Issue Type +	Ma	Location *	WS



Looking east at siphon on waterward slope.

Photo 4 of 4: SP_2018_RD0524_107_31_20180323_00072.jpg



Looking south slope damage on waterward shoulder and slope.

LM Start	2.27	Rating **	U	Issue No.		32	_	
LM End	2.29	Issue Type +	Ma	Location *	LS			
Category	Earthen L	.evee		GPS Latitude/Longitude				
Calegory				Start		End		
Itom	Vegetatio	n		37.9203	72°	37.920167	0	
пеш	Item -121.320230 ° -121.319890							
DWR ID DWR_RD0524_01_s _ 2012_32								
Comment Code								

V4 : Elderberries are blocking visibility and flood fight capability.

Inspector Comment

Dense elderberry bushes on landside slope and toe.

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.30	Rating **	М	Issue No.		70
LM End	2.30	Issue Type +	Ма	Location *	WS	
Category	GPS La	atitud	e/Longitude			
Calegory	Category					End
Item	DWR Ero	sion Survey		37.9201	50°	37.920150°
пеш				-121.3197	00°	-121.319700°
DWR ID RD0524U01RM42.9						
Comment Code						

Inspector Comment

09/13/2017: The erosion is located immediately upstream of a repaired levee section. [2017 Site ID:RD0524U01RM42.9]

LM Start	2.30	Rating **	М	Issue No.	70 (cont)
LM End	2.30	Issue Type +	Ma	Location *	WS



Front view of the pocket erosion.

Photo 2 of 3: SP_2018_RD0524_107_70_20180323_00141.jpg



Close view of the erosion.

LM Start	2.30	Rating **	М	Issue No.	70 (cont)
LM End	2.30	Issue Type +	Ma	Location *	WS

Photo 3 of 3: SP_2018_RD0524_107_70_20180323_00142.jpg



Front view of the erosion.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.32	Rating **	М	Issue No.	34			
LM End	2.33	Issue Type +	Ma	Location *	WS			
Category	Earthen Levee					e/Longitude		
Calegory	legory					End		
Item	Slope Stability			37.9198	85 °	37.919703°		
пеш				-121.3197	13 °	-121.319702 °		
DWR ID	DWR_RD0	524_01_s _ 201	2_34					
		Comn	nent Cod	le				
S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.								
	Inspector Comment							

Inspector Comment

Slope damage caused by walking traffic and using bank as a fishing platform.



Looking northeast at damage to the slope possibly caused by human activity.

LM Start	2.33	Issue No.		107		
LM End	2.33	2.33 Issue Type + Ma		Location *		LS
Catagony	evee	GPS Latitude/Longitude				
Category				Start		End
Item	Trim / Thi	n Trees		37.9197	42 °	37.919742 °
пеш			-121.3196	23 °	-121.319623 °	
DWR ID DWR_RD0524_01_s _ 2012_107						
		C		l a		

Comment Code

T1: Trim trees to at least five feet above ground level.

Inspector Comment



Looking northwest at untrimmed tress at landward toe.

Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

		5 :: ++						
LM Start	2.38	Rating **	М	Issue No.		184		
LM End	2.38	Issue Type +	Ma	Location *		LS		
Category	Earthen L	evee		GPS L	atitud	e/Longitude		
Calegory				Start		End		
Item	Trim / Thi	n Trees		37.9190	36°	37.919036°		
пеш				-121.319969 °		-121.319969 °		
DWR ID	DWR_RD0	524_01_s _ 201	4_184					
		Comn	nent Cod	de				
T1: Trim t	trees to at	least five feet	above g	round level				
		Inspect	or Comm	nent				

No Photos

LM Start	2.41	Rating **	U	Issue No.		35
LM End	2.45	Issue Type +	Ma	Location *		LS
Category	Earthen L	GPS Latitude/Longitude				
Calegory		Start		End		
Item	Vegetatio	n		37.9187	85 °	37.918515°
пеш				-121.3204	17°	-121.321110 °
DWR ID	DWR_RD0	524_01_s _ 201	2_35			

Comment Code

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment

No Photos

LM Start	2.44	Issue No.		36			
LM End	2.47	Issue Type +	Ма	Location *	Location * WS		
Category	.evee	GPS La	titud	le/Longitude			
Category				Start		End	
Erosion / Bank Caving				37.918628°		37.918438 °	
item				-121.3208	17°	-121.321452 °	
DWR ID	DWR_RD0	524_01_s _ 201	2_36				
		Comn	nent Cod	le			
E1 : Note a	and monito	or erosion site					
Inspector Comment							

Photo 1 of 1 : SP_2018_RD0524_107_36_20180323_00080.jpg



Looking east at erosion on waterside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.45	Rating **	U	Issue No.		80	
LM End	2.45	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.9184	80°	37.918480 °	
пеш				-121.3211	14 °	-121.321114°	
DWR ID DWR_RD0524_01_s _ 2012_80							
		Comn	nent Cod	de			
T1 : Trim t	rees to at	least five feet	above g	round level.			
				1			
		Inspecto	or Comm	nent			
Untrimmed tree on landside slope.							



Looking south at untrimmed tree on landward slope.

LM Start	2.47	Rating **	М	Issue No.	160		
LM End	2.48	Issue Type +	Ma	Location *	WS		
Category	evee	GPS La	titud	le/Longitude			
Category	Category			Start		End	
Item	Erosion / Bank Caving			37.918403°		37.918383 °	
пеш	item				42 °	-121.321497 °	
DWR ID	DWR_RD0	524_01_s _ 201	7_160				
Comment Code							
E1 : Note and monitor erosion site.							

Inspector Comment

Runoff erosion on landside slope



Looking east at erosion caused by rain runoff on waterward slope.

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.47	Rating **	М	Issue No.		249		
LM End	2.47	Issue Type +	Ma	Location *		WS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Category				Start		End		
Item	Vegetatio	n		37.9183	86°	37.918386°		
Item	item					-121.321444°		
DWR ID DWR_RD0524_01_f _ 2017_249								
		Comn	nent Cod	de				
V4 : Elderl	berries are	blocking visib	ility and	flood fight	capa	bility.		
Inspector Comment								
		тороск	JI 0011111	ioni				

No Photos

LM Start	2.49	Rating **	U	Issue No.		37	
LM End	2.50	Issue Type +	Ma	Location *		LS	
Category Earthen Levee				GPS Latitude/Longitude			
				Start		End	
Item	Vegetation				45°	37.918302°	
item				-121.321765 °		-121.321923 °	
DWR ID	DWR_RD0	524_01_s _ 201	2_37				
Comment Code							
V4 : Elderberries are blocking visibility and flood fight capability.							

Inspector Comment

No Photos

LM Start	2.50	Rating **	U	Issue No.		38		
LM End	2.50	Issue Type +	Ма	Location *		WS		
Category Earthen Levee				GPS Latitude/Longitude				
				Start		End		
Item	Vegetatio	n		37.918287°		37.918287°		
item				-121.321980 °		-121.321980 °		
DWR ID	DWR_RD0	524_01_s _ 201	2_38					
Comment Code								
V4 : Elderk	perries are	blocking visib	ility and	flood fight of	сара	bility.		

Inspector Comment

No Photos

* Location	
LS: Land Side	N/A: Not Applicable
WS: Water Side	
OD - O	

* Rating
A: Acceptable
M: Minimally Acceptable
U: Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.53	Rating **	U	Issue No.	40			
LM End	2.57	Issue Type +	Ma	Location *	LS			
Category Earthen Levee			GPS Latitude/Longitude					
			Start		End			
Item	Vegetatio	n		37.918047°		37.917498°		
item				-121.3224	15 °	-121.322797 °		
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_40							
Comment Code								

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment



Looking southwest at dense veg on landward slope.

LM Start	2.54	Rating **	М	Issue No.		82
LM End	2.54	Issue Type +	Ma	Location *		LS
Category	Earthen L	evee	GPS Latitude/Longitude			
Calegory		Start		End		
Item	Animal Co	ontrol		37.9179	78°	37.917978 °
iteiii			-121.3224	83 °	-121.322483 °	
DWR ID	DWR_RD0	524_01_s _ 201	2_82			·

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Landside slope damage from animal digging into levee.

LM Start	2.54	Rating **	М	Issue No.	82 (cont)
LM End	2.54	Issue Type +	Ma	Location *	LS

Photo 1 of 2: SP_2018_RD0524_107_82_20180323_00165.jpg



Looking southwest at large holes on landward slope. (Fall 2016)

Photo 2 of 2: SP_2018_RD0524_107_82_20180323_00166.jpg



Looking southwest at damaged landward slope. (Spring 2016)

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

-								
LM Start	2.57	Rating **	U	Issue No.		218		
LM End	2.57	Issue Type +	Ма	Location *	WS			
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Calegory				Start		End		
Item	Erosion /	Bank Caving		37.9174	37.917492 °			
пеш				-121.322795 ° -121.3227				
DWR ID DWR_RD0524_01_f _ 2016_218								
		Comn	nent Cod	le				
E2 : Sched	dule repair	of erosion site	e prior to	the next in	spec	ction.		
		Inspecto	or Comm	nent				
Large trench on waterside shoulder and slope. Trench is 45 x 15 x 5.								

LM Start	2.57	Rating **	U	Issue No.	218 (cont)
LM End	2.57	Issue Type +	Ma	Location *	WS



Looking east at trench on waterward shoulder.

Photo 2 of 3: SP_2018_RD0524_107_218_20180323_00301.jpg



Looking northwest at trench on waterward shoulder.

LM Start	2.57	Rating **	U	Issue No.	218 (cont)
LM End	2.57	Issue Type +	Ma	Location *	WS



Looking south at trench on waterward shoulder.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.60	Rating **	U	Issue No.		185		
LM End	2.64	Issue Type +	Ma	Location *		WS		
Earthen Levee				GPS Latitude/Longitude				
Category	лу			Start		End		
Item	Trim / Thi	n Trees		37.9171	52°	37.916807°		
item				-121.3225	82 °	-121.322069 °		
DWR ID DWR_RD0524_01_s _ 2014_185								
Comment Code								

T2: Thin trees to allow visibility of the ground and room to flood fight.

Inspector Comment



Looking northwest at untrimmed trees on landward slope and toe.

LM Start	2.64	Rating **	U	Issue No.		43
LM End	2.64	Issue Type +	Ма	Location *		LS
Category Earthen Levee				GPS La	atitud	e/Longitude
Calegory				Start		End
Item	Vegetatio	n		37.9167	80°	37.916780°
item				-121.3220	95 °	-121.322095 °
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_43					

Comment Code

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment

Dense elderberry on landside shoulder, slope, and toe.

Photo 1 of 1 : SP_	_2018_	_RD0524 ₋	_107_	_43_2	20180323_	_00093.jpg	
	70. 77.3		BOOK IN	ALC:	position of the second	Control of the contro	



Looking southeast at dense veg on landward slope and toe fall 2015.

LM Start	2.65	Rating **	U	Issue No.	918			
LM End	2.66	Issue Type +	Ma	Location *	LS			
Category	Earthen L	evee		GPS La	titud	e/Longitude		
Calegory				Start		End		
Itom	Trim / Thin Trees			37.9167	18°	37.916502°		
Item				-121.3220	20°	-121.321980 °		
DWR ID DWR_RD0524_01_s _ 2012_918								
Comment Code								

Comment Cod

T1 : Trim trees to at least five feet above ground level.

Inspector Comment

Untrimmed trees on landside slope and toe.



Looking south at untrimmed trees on landward slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.65	Rating **	М	Issue No.		250		
LM End	2.65	Issue Type +	Ма	Location *		WS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Calegory				Start		End		
Item	Encroach	ments		37.9166	49°	37.916649°		
пеш				-121.321965 °		-121.321965 °		
DWR ID DWR_RD0524_01_f _ 2017_250								
		Comn	nent Cod	le				
DE : Debri	S							
		Inspecto	or Comm	nent				

No Photos

LM Start	2.70	Rating **	М	Issue No.		264
LM End	2.76	Issue Type +	Ma	Location *		LS
Category Earthen Levee			GPS Latitude/Longitude			
Calegory				Start		End
Item	Trim / Thin Trees			37.9159	45 °	37.915276°
пеш				-121.3222	90°	-121.322808 °
DWR ID	DWR_RD0	524_01_s _ 201	2_264			

Comment Code

T2: Thin trees to allow visibility of the ground and room to flood fight.

Inspector Comment

Untrimmed trees along landside slope and toe. Additionally, trim over hanging trees at least 12 feet above ground level.

LM Start	2.70	Rating **	М	Issue No.	264 (cont)
LM End	2.76	Issue Type +	Ma	Location *	LS

Photo 1 of 2: SP_2018_RD0524_107_264_20180323_00369.jpg



Looking south at untrimmed trees on landward slope.

Photo 2 of 2: SP_2018_RD0524_107_264_20180323_00370.jpg



Looking north at dense trees overhanging levee crown.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.75	Rating **	U	Issue No.		152		
LM End	2.75	Issue Type +	Ма	Location *	CR			
Category	Earthen L	evee		GPS L	atitud	le/Longitude		
Calegory				Start		End		
Item	Encroach	ments		37.9154	27°	37.915427°		
пеш				-121.322691 °		-121.322691 °		
DWR ID DWR_RD0524_01_s _ 2018_152								
	Comment Code							
TR : Tree	or limb							
		Inspecto	or Comm	nent				
Large tree branch across levee crown. Block access to levee.								

LM Start	2.75	Rating **	U	Issue No.	152 (cont)
LM End	2.75	Issue Type +	Ma	Location *	CR



Looking south at fallen tree on waterward slope. (Spring 2018)

Photo 2 of 3: SP_2018_RD0524_107_152_20180427_00498.jpg



Looking south at fallen tree across levee crown. (Spring 2018)

LM Start	2.75	Rating **	U	Issue No.	152 (cont)
LM End	2.75	Issue Type +	Ma	Location *	CR



Looking southwest at broken tree branch on landward slope. (Spring 2018)

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.77	Rating **	U	Issue No.	219				
LM End	2.80	Issue Type +	Ма	Location *		LS			
Category	Earthen L	evee		GPS La	atitud	le/Longitude			
Calegory				Start		End			
Item	Animal Co	ontrol		37.9151	95°	37.915052 °			
пеш				-121.3229	° 08	-121.323430 °			
DWR ID	DWR ID DWR_RD0524_01_f _ 2016_219								
		Comn	nent Cod	de					
A1 : Exteri	minate rod	ents and back	fill and o	compact or	grou	it burrows.			
		Inspecto	or Comm	nent					
Several large rodent holes on landside slope.									

LM Start	2.77	Rating **	U	Issue No.	219 (cont)
LMEnd	2 90	Issue Type +	Ma	Location *	1 9



Looking at typical rodent hole on waterward slope.

Photo 2 of 2: SP_2018_RD0524_107_219_20180323_00304.jpg



Looking south at several rodent holes on landward slope.

LM Start	2.80	Rating **	U	Issue No.		48	
LM End	2.80	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Vegetatio	n		37.9150	22 °	37.915022°	
пеш				-121.3234	43 °	-121.323443 °	
DWR ID	DWR_RD0	524_01_s _ 201	2_48				
		Comn	nent Coc	le			
V4 : Elderl	berries are	blocking visib	oility and	flood fight	capa	bility.	
Inspector Comment							



Looking south at dense elderberry on landside slope. (Spring 2012)

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.80	Rating **	U	Issue No.	48 (cont)		
LM End	2.80	Issue Type +	Ma	Location *	LS		
Category	.evee	GPS La	atitud	e/Longitude			
Calegory				Start		End	
Item	Vegetatio	n		37.915022°		37.915022°	
пеш				-121.323443 ° -121.323		-121.323443 °	
DWR ID DWR_RD0524_01_s _ 2012_48							
Comment Code							
V/4 . Elsland		والماني ومناوا مالوا	. 1114	flaad fialat		la ilia	

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment



Looking south at elderberry on landside slope.(Spring 2011)

LM Start	2.86	U	Issue No.		49		
LM End	2.86	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee	GPS La	atitud	e/Longitude		
Calegory			Start		End		
Item	Vegetatio	n		37.9144	27°	37.914427 °	
пеш				-121.3241	98 °	-121.324198°	
DWR ID DWR_RD0524_01_s _ 2012_49							
	Comment Code						

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment



Looking northwest at elderberry on landside slope.

LM Start	2.87	Rating **	U	Issue No.		209	
LM End	2.87	Issue Type +	Ma	Location *	LS		
Category	Catagoria Earthen Levee				titud	le/Longitude	
Category				Start		End	
Item	Trim / Thi	n Trees		37.9142	57°	37.914257	0
Item				-121.3243	17°	-121.324317	0
DWR ID DWR_RD0524_01_s _ 2016_209							

Comment Code

T1 : Trim trees to at least five feet above ground level.

Inspector Comment

Untrimmed walnut tree on landside slope and toe.

Photo 1 of 1: SP_2018_RD0524_107_209_20180323_00290.jpg



Looking northwest at untrimmed tree at landward toe.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.90	Rating **	U	Issue No.		50		
LM End	2.92	Issue Type +	Ма	Location *	LS			
Category	Earthen L	evee		GPS La	atitud	le/Longitude		
Calegory				Start		End		
Item	Encroach	ments		37.9137	'67 °	37.913486 °		
item				-121.3244	27°	-121.324428 °		
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_50							
		Comn	nent Cod	de				
PR : Pruni	ngs							
			_					
	Inspector Comment							



Looking southwest at prunings on landside slope.

LM Start	2.91 Rating ** U		Issue No.		161	
LM End	2.91	Issue Type +	Ma	Location * WS		
Category	evee	GPS La	atitud	e/Longitude		
Calegory			Start		End	
Item	Trim / Thi	n Trees		37.9137	33 °	37.913733°
item				-121.3243	98 °	-121.324398 °
DWR ID	DWR_RD0524_01_s _ 2017_161					
Comment Code						

T5: Tree stumps.

Inspector Comment



Looking east at large tree stump on waterward shoulder.

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

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Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.93	Rating **	U	Issue No.		51		
LM End	2.93	Issue Type +	Ma	Location *		LS		
Category	Earthen L	evee		GPS La	atitud	le/Longitude		
Calegory				Start		End		
Item	Trim / Thin Trees			37.9134	15°	37.913389 °		
item				-121.3245	03°	-121.324440 °		
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_51							
		Comn	nent Cod	le				
T1 : Trim t	T1 : Trim trees to at least five feet above ground level.							
		Inspecto	or Comm	nent				
Untrimmed	trees on	andside slope	and toe).				

T	Samuel Land	
	W.	
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7.4		
	7	

Photo 1 of 2: SP_2018_RD0524_107_51_20180323_00113.jpg

Looking south at dense trees on landward slope fall 2015

 LM Start
 2.93
 Rating **
 U
 Issue No.
 51 (cont)

 LM End
 2.93
 Issue Type +
 Ma
 Location *
 LS



Looking south at dense trees on landward slope spring 2015

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.96	Rating **	U	Issue No.		71	
LM End	2.96	Issue Type +	Ma	Location *		WS	
Supplemental			GPS La	atitud	e/Longitude		
Category				Start		End	
Item	DWR Erosion Survey			37.9130	10°	37.913010°	
пеш				-121.3244	90°	-121.324490 °	
DWR ID RD0524U01RM43.52							
		Comn	nent Cod	de			
		Inspecto	or Comm	nent			
09/13/201	7: A new p	ocket erosion	observe	ed at the ero	oison	site, next to	
an irrigation	n pipe.						
07/25/2016: No significant change observed.							
06/24/2015: No significant change observed.							
06/19/2014: No significant change observed.							
08/13/2013: No significant change observed.							

 LM Start
 2.96
 Rating **
 U
 Issue No.
 71 (cont)

 LM End
 2.96
 Issue Type +
 Ma
 Location *
 WS

08/07/2012: The site was first reported in 2012 spring levee inspection

report. [2017 Site ID:RD0524U01RM43.52]



Front view of the erosion.

Photo 2 of 4: SP_2018_RD0524_107_71_20180323_00144.jpg



View of the newly developed pocket erosion next to an irrigation pipe.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.96	Rating **	U	Issue No.		71 (cont)		
LM End	2.96	Issue Type +	Ма	Location *	WS			
Supplemental			GPS Latitude/Longitude					
Category				Start		End		
Item	DWR Ero	sion Survey		37.9130	10°	37.913010 °		
пеш	item				90°	-121.324490 °		
DWR ID RD0524U01RM43.52								
		Comn	nent Cod	le				
			_					
		Inspect	or Comm	nent				
		ocket erosion	observe	d at the ero	oisor	site, next to		
an irrigatio								
	-	ficant change						
06/24/2015: No significant change observed.								
06/19/2014: No significant change observed.								
08/13/2013: No significant change observed.								
08/07/2012: The site was first reported in 2012 spring levee inspection								

Ма

Issue No.

Location *

report. [2017 Site ID:RD0524U01RM43.52]

2.96

2.96

LM Start

LM End

Rating **

Issue Type +

Close view of the erosion.

Photo 3 of 4: SP_2018_RD0524_107_71_20180323_00145.jpg

Photo 4 of 4 : SP_2018_RD0524_107_71_20180323_00146.jpg



Close view of the erosion. Note the new pocket erosion next to the irrigation pipe on the site.

* Location	
LS: Land Side	N/A: Not Applicable
WS: Water Side	

* Rating

A: Acceptable

M: Minimally Acceptable

U: Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma: Maintenance Deficiancy

Ob: Design & System Obsolescence

En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.96	Rating **	A/W	Issue No.		227	
LM End		Issue Type +	Ma	Location *			
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
Item	2017 Stor	2017 Storm Damage		37.91290	0 °		0
пеш				-121.32440	o°		0
DWR ID	DWR_RD0	524_01_f _ 201	7_227				
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No:465

Site Designation:LMA-292

Repair Type: Erosion

Rating:Area of Concern

Field Date:7/26/2017

Notes: Lower priority because erosion is within rip rap, is only present on lower slope and is not too deep. Levee is narrow here.

LM Start	2.96	Rating **	A/W	Issue No.	227 (cont)
LM End		Issue Type +	Ma	Location *	



Photo 2 of 2 : LEVAL_SP_2018_465_2232.jpg



N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.99	Rating **	A/W	Issue No.	228	
LM End	3.01	Issue Type +	Ма	Location *		
Category Supplemental				GPS La	titud	le/Longitude
Calegory			Start		End	
Item	2017 Stor	m Damage		37.9125	° 00	37.912300°
пеш				-121.3247	° 00	-121.324700 °
DWR ID	DWR_RD0524_01_f _ 2017_228					
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:529 Site Designation:LMA-435 Repair Type: Erosion Rating: Area of Concern Field Date:8/10/2017 Notes:

LM Start	2.99	Rating **	A/W	Issue No.	228 (cont)
LM End	3.01	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL_SP_2018_529_4188.jpg



+ Issue Type

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	2.99	Rating **	A/W	Issue No.	228 (cont)			
LM End	3.01	Issue Type +	Ma	Location *				
Catagony	Suppleme	ental		GPS La	atitud	le/Longitude		
Category				Start		End		
Itom	2017 Stor	017 Storm Damage			00 °	37.912300°		
Item				-121.3247	00 °	-121.324700 °		
DWR ID	DWR_RD0524_01_f _ 2017_228							
	Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:529

Site Designation:LMA-435

Repair Type: Erosion

Rating: Area of Concern

Field Date:8/10/2017

Notes:



LM Start	3.02	Rating **	М	Issue No.		924	
LM End	3.02	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee	GPS Latitude/Longitude				
Calegory				Start		End	
	Animal Co	nimal Control			63 °	37.912163°	
Item				-121.3247	02 °	-121.324702 °	
DWR ID	DWR_RD0	2_924					
		le					

A2: Repair the levee slope damaged by livestock and prevent large animal access.

Inspector Comment

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR · Crown	U · Unaccentable	A/W · Acceptable but Monitor & Maintain	En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.07	Rating **	M	Issue No.		925		
LM End	3.27	Issue Type +	Ma	Location *		LS		
Category	Earthen L	evee		GPS La	atitud	le/Longitude		
Calegory				Start		End		
Item	Animal Co	ontrol		37.9113	82°	37.908602°		
пеш				-121.3249	28°	-121.325395°		
DWR ID	DWR_RD0	524_01_s _ 201	2_925					
		Comn	nent Cod	de				
A1 : Exterr	minate rod	ents and back	fill and o	compact or	grou	it burrows.		
		Inspecto	or Comm	nent				
Several ro	dent holes	on levee slop	es.					
	·							

Photo 1 of 3 : SP_2018_	RD0524_	107_925	_20180323	_00387.jpg
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	3			
	- In		A	
Tomas of the same			-	
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	100	13000		
		E UNITED ST	11 08 2	007

Looking southwest at the landside slope.

LM Start 3.07 Rating ** M Issue No. 925 (cont) LM End 3.27 Issue Type + Ma Location * LS

Photo 2 of 3: SP_2018_RD0524_107_925_20180323_00388.jpg



Looking at typical view of rodent hole with this section fall 2015.

LM Start	3.07	Rating **	М	Issue No.	925 (cont)
LM End	3.27	Issue Type +	Ma	Location *	LS



Looking at typical rodent holes on landward slope along this reach.

*Location
LS: Land Side N/A: Not Applicable
WS: Water Side
CR: Crown

** Rating
A: Acceptable
M: Minimally Acceptable
U: Unacceptable
A: Acceptable
A: Not Inspected/Rated
C: Corrected
A/W: Acceptable but Monitor & Maintain

* Issue Type
Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.23	Rating **	A/W	Issue No.	229			
LM End		Issue Type +	Ma	Location *				
Category	Suppleme	ental		GPS Latitude/Longitude				
Calegory			Start		End			
Itom	2017 Stor	m Damage		37.909200 °			0	
Item		-121.32530	o°		0			
DWR ID	DWR ID DWR_RD0524_01_f _ 2017_229							
	Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No:466

Site Designation:LMA-293 Repair Type: Erosion

Rating:Area of Concern Field Date:7/26/2017

Notes: Lower priority because damage is only on the lower 1/5 of slope. The slopes US and DS are rocked. Levee is narrow here.

LM Start	3.23	Rating **	A/W	Issue No.	229 (cont)
LM End		Issue Type +	Ma	Location *	



Photo 2 of 2: LEVAL_SP_2018_466_2229.jpg



N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma: Maintenance Deficiancy

Ob: Design & System Obsolescence

En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.26	Rating **	A/W	Issue No.	230			
LM End	3.26	Issue Type +	Ма	Location *				
Category	Supplemental				GPS Latitude/Longitude			
Calegory				Start		End		
Item	2017 Stor	m Damage		37.90880	00°	37.908700°		
пеш				-121.32540	00°	-121.325300 °		
DWR ID	DWR_RD0	524_01_f _ 201	7_230					
Comment Code								

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:528

Site Designation:LMA-434

Repair Type: Erosion Rating:Area of Concern

Field Date:8/10/2017

Notes: combined with LMA-433

LM Start	3.26	Rating **	A/W	Issue No.	230 (cont)
LM End	3.26	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL_SP_2018_528_4197.jpg



N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma: Maintenance Deficiancy

Ob: Design & System Obsolescence

En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.26	Rating **	A/W	Issue No.	230 (cont)		
LM End	3.26	Issue Type +	Ma	Location *			
Category	Supplemental			GPS Latitude/Longitude			
Calegory	Sategory		Start		End		
Item	2017 Stor	m Damage		37.90880	00°	37.908700 °	
пеш				-121.32540	00°	-121.325300 °	
DWR ID	DWR_RD0	524_01_f _ 201	7_230				
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:528

Site Designation:LMA-434 Repair Type: Erosion

Rating:Area of Concern Field Date:8/10/2017

Notes: combined with LMA-433



LM Start	3.27	Rating **	A/W	Issue No.		231	
LM End	3.28	Issue Type +	Ma	Location *			
Category	Suppleme	ental		GPS La	atitud	e/Longitude	
Category	ory			Start		End	
Itom	2017 Stor	m Damage		37.9086	00°	37.908500	0
LM End 3.28 Issue Type + Ma Location * Category Supplemental GPS La	25400 ° -121.32540		0				
DWR ID	DWR_RD0	524_01_f _ 201	7_231				
		Comn	nent Coc	lo.			

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:527

Site Designation:LMA-433 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes: combined with LMA-434

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.27	Rating **	М	Issue No.		186	
LM End	3.27	Issue Type +	Ма	Location *	WS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.9085	51 °	37.908551	
пеш				-121.3253	81 °	-121.325381	
DWR ID	DWR_RD0	524_01_s _ 201	4_186				
		Comn	nent Cod	le			
T1: Trim t	rees to at I	east five feet	above g	round level.			
			_				
		Inspecto	or Comm	ent			

No Photos

LM Start	3.30	Rating **	A/W	Issue No.		232	
LM End		Issue Type +	Ma	Location *			
Category Supplemental		GPS Lati	tud	e/Longitude			
Calegory				Start		End	
Item	2017 Stor	m Damage		37.908200	°		0
item				-121.325300	°		0
DWR ID	DWR_RD0	524_01_f _ 201	7_232				

Comment Code

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee

Site ID No:467

sections.

Site Designation:LMA-294

Repair Type: Erosion

Rating:Area of Concern

Field Date:7/26/2017

Notes: It looks like new rip rap was plaved on the lower 1/4 of the

slope. There is a 2-3 ft scarp above the rip rap.



N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.30	Rating **	A/W	Issue No.		232 (cont)	
LM End		Issue Type +	Ma	Location *			
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
2017 Storm Damage				37.90820	0°		0
пеш				-121.325300 °			0
DWR ID	DWR_RD0524_01_f _ 2017_232						
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No:467

Site Designation:LMA-294 Repair Type: Erosion Rating:Area of Concern

Field Date:7/26/2017

Notes: It looks like new rip rap was played on the lower 1/4 of the

slope. There is a 2-3 ft scarp above the rip rap.

LM Start	3.30	Rating **	A/W	Issue No.	232 (cont)
LM End		Issue Type +	Ma	Location *	



Photo 3 of 3: LEVAL_SP_2018_467_2225.jpg



N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.30	Rating **	IJ	Issue No.		79	
LIVI Start							
LM End	3.32	Issue Type +	Ма	Location *	WS		
Category	Supplemental			GPS Latitude/Longitude			
Category				Start		End	
Item	DWR Erosion Survey			37.908090°		37.908090°	
пеш				-121.3250	90°	-121.325090°	
DWR ID RD0524U01RM43.86							
Comment Code							
Inspector Comment							
09/13/2017: No significant change observed.							
07/25/2016: No significant change observed.							
06/24/2015: No significant change observed.							
06/19/2014: No significant change observed.							
08/13/2013: The levee toe seems to have been protected by river rocks							
and vegetation on site. [2017 Site ID:RD0524U01RM43.86]							

08/13/2013: The levee toe seems to have been protected by river rocks and vegetation on site. [2017 Site ID:RD0524U01RM43.86]							
LM Start 3.30 Rating ** U Issue No. 79 (cont)							
LM End	3.32	Issue Type +	Ma	Location *	WS		



Front View of the erosion.

Photo 2 of 4: SP_2018_RD0524_107_79_20180323_00157.jpg



Front view of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway		Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.30	Rating **	U	Issue No.		79 (cont)	
LM End	3.32	Issue Type +	Ma	Location *		WS	
Category	Suppleme	ntal		GPS La	atitud	le/Longitude	
Calegory			Start		End		
Item	DWR Erosion Survey			37.9080	90°	37.908090°	
пеш	em				90°	-121.325090 °	
DWR ID	DWR ID RD0524U01RM43.86						
		Comn	nent Cod	le			
			_				
	Inspector Comment						
		ficant change					
	07/25/2016: No significant change observed.						
06/24/201	06/24/2015: No significant change observed.						

 and vegetation on site. [2017 Site ID:RD0524U01RM43.86]

 LM Start
 3.30
 Rating **
 U Issue No.
 79 (cont)

 LM End
 3.32
 Issue Type + Ma Location *
 WS

08/13/2013: The levee toe seems to have been protected by river rocks

06/19/2014: No significant change observed.



Close view of the erosion. Note the river rocks and vegetation at the levee toe.

Photo 4 of 4: SP_2018_RD0524_107_79_20180323_00159.jpg



Front View of the erosion.

* Location	
LS: Land Side	N/A: Not Applicable
WS: Water Side	

* Rating

A: Acceptable

M: Minimally Acceptable

U: Unacceptable

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.30	Rating **	U	Issue No.		926	
LM End	3.37	Issue Type +	Ма	Location *	LS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Category				Start		End	
Item	Trim / Thin Trees				58°	37.907112 °	
item		-121.325418 °		18° -121.325350°			
DWR ID DWR_RD0524_01_s _ 2012_926							
		Comn	nent Cod	le			
T1 : Trim t	rees to at	east five feet	above g	round level.			
		Inspecto	or Comm	nent			

Ma

Issue No.

Location 3

926 (cont)

LS

3.30

3.37

LM Start

LM End

Rating **

Issue Type +

noto 1 of 2	: SP_2018_F	RD0524_107	_926_2018032	23_00390.jpg
		u tu		K

Looking southwest at dense veg on landward slope.

Photo 2 of 2: SP_2018_RD0524_107_926_20180323_00391.jpg



Looking at untrimmed trees on landward slope and toe.

							_
LM Start	3.37	Rating **	М	Issue No.		53	_
LM End	3.37	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Animal Co	ontrol		37.9071	32 °	37.907132	0
Item	item			-121.325352 °		-121.325352	0
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_53						
		Comn	nent Cod	le			
A1 : Exterr	minate rod	ents and back	fill and o	compact or	grou	t burrows.	
		Inspecto	or Comm	nent			

No Photos

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

3.43	Rating **	М	Issue No.		172		
3.43	Issue Type +	Ma	Location *		LS		
Earthen L	evee		GPS La	atitud	e/Longitude		
			Start		End		
Encroachments			37.9064	29°	37.906429°		
			-121.3249	24 °	-121.324924 °		
DWR ID DWR_RD0524_01_s _ 2018_172							
	Comn	nent Cod	le				
ngs							
Inspector Comment							
	3.43 Earthen L Encroachi DWR_RD0	3.43 Issue Type + Earthen Levee Encroachments DWR_RD0524_01_s _ 201 Comm	3.43 Issue Type + Ma Earthen Levee Encroachments DWR_RD0524_01_s _ 2018_172 Comment Coonings	3.43 Issue Type + Ma Location * Earthen Levee GPS La Start Encroachments 37.9064 -121.3249 DWR_RD0524_01_s _ 2018_172 Comment Code ngs	3.43 Issue Type + Ma Location * Earthen Levee		

No Photos

LM Start	3.45	Issue No.		54			
LM End	3.45	Issue Type +	Ма	Location *	LS		
Category Earthen Levee			GPS Latitude/Longitude				
			Start		End		
Item	Trim / Thi	n Trees		37.9062	27°	37.906227	э
item			-121.3246	83 °	-121.324683	э	
DWR ID DWR_RD0524_01_s _ 2012_54							
Comment Code							

T3: Trim and thin trees to allow visibility of the ground and room to

flood fight.

Inspector Comment

Dense untrimmed trees on landside slope.

Photo 1 of 1: SP_2018_RD0524_107_54_20180323_00116.jpg



Looking northwest at dense vegetation on landside slope.

3.48	Rating **	М	Issue No.		177	
3.48	Issue Type +	Ма	Location *		LS	
Category Earthen Levee			GPS Latitude/Longitude			
			Start		End	
Encroachments			37.90599	94°	37.905994°	
Item				94 °	-121.324194°	
DWR ID DWR_RD0524_01_f _ 2014_177						
Comment Code						
	3.48 Earthen L Encroach	3.48 Issue Type + Earthen Levee Encroachments DWR_RD0524_01_f _ 201	3.48 Issue Type + Ma Earthen Levee Encroachments DWR_RD0524_01_f_2014_177	3.48 Issue Type + Ma Location * Earthen Levee GPS La Start Encroachments 37.90598 -121.32418 DWR_RD0524_01_f_2014_177	3.48 Issue Type + Ma Location * Earthen Levee GPS Latitud Start Encroachments 37.905994 ° -121.324194 ° DWR_RD0524_01_f _ 2014_177	

TR: Tree or limb

Inspector Comment

Dead tree on landside toe.



Looking at dead tree limb at landward toe fall 2015.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.51 Rating ** U Issue No. 5				57		
LM End	3.59	Issue Type +	Ma	Location *	LS		
Category	Earthen L		GPS La	atitud	e/Longitude		
Calegory				Start		End	
Item	Trim / Thin Trees			37.9056	38°	37.904570°	
item				-121.3238	92 °	-121.324215 °	
DWR ID	DWR_RD0	524_01_s _ 201			·		
Comment Code							

T3: Trim and thin trees to allow visibility of the ground and room to flood fight.

Inspector Comment



Looking south at dense trees on landward slope.

LM Start	3.53	Rating **	A/W	Issue No.		233
LM End	3.54	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS La	atitud	le/Longitude
Calegory				Start		End
Item	2017 Stor	m Damage		37.9053	00°	37.905200°
item			-121.3238	00°	-121.323900 °	
DWR ID	DWR RD0524 01 f 2017 233					

Comment Code

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:526

Site Designation:LMA-432 Repair Type: Erosion

Rating:Area of Concern Field Date:8/10/2017

Notes:



Rating
A: Acceptable
M: Minimally Acceptable
U: Unacceptable

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.53	Rating **	A/W	Issue No.	233 (cont)		
LM End	3.54	Issue Type +	Ma	Location *			
Category	Suppleme	ental		GPS La	tituc	le/Longitude	
Calegory				Start		End	
Item	2017 Stor	m Damage		37.9053	° 00	37.905200°	
пеш			-121.3238	° 00	-121.323900 °		
DWR ID	DWR_RD0	7_233					
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:526 Site Designation:LMA-432 Repair Type: Erosion Rating:Area of Concern

Field Date:8/10/2017 Notes:

LM Start	3.53	Rating **	A/W	Issue No.	233 (cont)
LM End	3.54	Issue Type +	Ma	Location *	



Photo 3 of 3: LEVAL_SP_2018_526_4203.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.56	Rating **	A/W	Issue No.	234	
LM End	3.57	Issue Type +	Ma	Location *		
Category	Suppleme	GPS La	GPS Latitude/Longitude			
Calegory				Start		End
Item	2017 Stor	m Damage		37.90490	00°	37.904800 °
пеш				-121.32390	00°	-121.324100 °
DWR ID	DWR_RD0	7_234				
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:525

Site Designation:LMA-431

Repair Type: Erosion

Rating: Area of Concern

Field Date:8/10/2017

Notes:

LM Start	3.56	Rating **	A/W	Issue No.	234 (cont)
LM End	3.57	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL_SP_2018_525_4206.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.56	Rating **	A/W	Issue No.	234 (cont)		
LM End	3.57	Issue Type +	Ma	Location *			
Category	Suppleme	ental		GPS La	tituc	le/Longitude	
Calegory				Start		End	
ltom	Item 2017 Storm Damage			37.90490	00°	37.904800 °	
пеш				-121.32390	00°	-121.324100 °	
DWR ID	DWR_RD0	524_01_f _ 201	7_234				
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:525

Site Designation:LMA-431

Repair Type: Erosion

Rating: Area of Concern

Field Date:8/10/2017

Notes:



LM Start	3.62	Rating **	М	Issue No.		163	
LM End	3.62	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS Lati	tud	e/Longitude	
Calegory				Start		End	
Item	Animal Co	ontrol		37.904348	3°	37.904348	0
item				-121.324683	3°	-121.324683	0
DWR ID	DWR_RD0						

Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

No Photos

Location	
LS : Land Side WS : Water Side	N/A: Not Applicable
WS: Water Side	
OD - O	

Thursday, May 31, 2018 12:47

* Location

Rating A : Acceptable : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.64	Rating **	М	Issue No.		58	
LM End	3.64	Issue Type + Ma Location *		Issue Type + Ma Location *			WS
Catagony	Earthen Levee			GPS Latitude/Longitude			
Calegory	Category			Start		End	
Item	Slope Stability			37.9041	13 °	37.904113 °	
пеш	item		-121.3250	80 °	-121.325080 °		
DWR ID DWR_RD0524_01_s _ 2012_58							

Comment Code

S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.

Inspector Comment

Landowner cut steps into waterside slope.

4/3/17: Steps washed away slope damage remains.

LM Start	3.64	Rating **	g ** M Issue No		58 (cont)	
LM End	3.64	Issue Type +	Ma	Location *	WS	



Looking south at step cut into waterward slope. (Spring 2017)

Photo 2 of 2: SP_2018_RD0524_107_58_20180323_00124.jpg



Looking southeast steps cut into waterside slope.

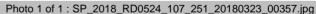
LM Start	3.67	Rating **	U	Issue No.	251		
LM End	3.67	Issue Type +	Ма	Location *	WS		
Earthen Levee			GPS Latitude/Longitude				
Category				Start		End	
Itom	Animal Co	ontrol		37.90377	'6 °	37.903776°	
Item				-121.325323 °		-121.325323 °	
DWR ID DWR_RD0524_01_f _ 2017_251							
Comment Code							

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Large rodent holes on both waterside and landside slope.





Looking northwest at the waterside slope.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.72	Rating **	A/W	Issue No.		252		
LM End	3.78	Issue Type +	Ma	Location *		CR		
Catagony	Earthen Levee				GPS Latitude/Longitude			
Calegory	Category			Start		End		
Item	Vegetation			37.903120°		37.902527°		
пеш				-121.325846 °		-121.326372 °		
DWR ID	DWR_RD0	524_01_f _ 201	7_252					
		Comn	nent Cod	le				
V2 : Remo	ve the wild	d growth other	than na	tive grasses	fro	m the levee		

Inspector Comment Contorl vegetation growth on crown.

No Photos

LM Start	3.75	Rating **	U	Issue No.		52	
LM End	3.75	Issue Type +	Ма	Location *		WS	
Catagonia Earthen Levee			GPS Latitude/Longitude				
Category				Start		End	
Item	Trim / Thi	n Trees		37.9028	28°	37.902828	0
item			-121.326170 °		-121.326170	0	
DWR ID DWR_RD0524_01_s _ 2016_52							
	Commont Codo						

T1: Trim trees to at least five feet above ground level.

Inspector Comment



Looking south at untrimmed tree on landward slope and toe.

LM Start	3.77	Rating **	U	Issue No.	927	
LM End	3.77	Issue Type +	Ma	Location *	LS	
Category Earthen Levee			GPS Latitude/Longitude			
			Start		End	
Item	Trim / Thin Trees			37.902645°		37.902645 °
пеш			-121.326340 °		-121.326340 °	
DWR ID DWR_RD0524_01_s _ 2012_927						
Comment Code						

T1: Trim trees to at least five feet above ground level.

Inspector Comment

Untrimmed almond tree on landside slope.



Looking southwest at untrimmed tree at landward toe.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.79	Rating **	U	Issue No.		59
LM End	3.80	Issue Type +	Ma	Location *		LS
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Calegory			Start		End	
Trim / Thin Trees				37.9022	287°	37.902163°
пеш				-121.326462 °		-121.326476°
DWR ID	DWR_RD0	524_01_s _ 201	2_59			
		Comn	nent Cod	le		
T1: Trim t	rees to at l	east five feet	above g	round level		
		Inspecto	or Comm	nent		
Downed tree on landward slope.						

LM Start	3.79	Rating **	U	Issue No.	59 (cont)
LM End	3.80	Issue Type +	Ma	Location *	LS



Looking south at dense veg on landward slope and toe.

Photo 2 of 2: SP_2018_RD0524_107_59_20180427_00501.jpg



Looking at fallen tree on landward slope. (Spring 2018)

LM Start	3.89	Rating **	U	Issue No.		94	
LM End	3.89	Issue Type +	Ma	Location *		WS	
Catagoni	Earthen Levee					le/Longitude	
Category			Start		End		
Item	Vegetation				40°	37.900940 °	
item				-121.3264	14 °	-121.326414°	
DWR ID	DWR_RD0	524_01_s _ 201	2_94				
		Comn	nent Cod	de			
V2 : Remo	ove the wild	d growth other	than na	tive grasse	s fro	m the levee	
Inspector Comment							
Remove cactus from waterside slope.							



Looking southeast at cactus on waterward slope fall 2015

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	3.89	Rating **	U	Issue No.	94 (cont)	
LM End	3.89	Issue Type +	Ma	Location *	WS	
Category Earthen Levee			GPS La	titud	le/Longitude	
Calegory	"y			Start		End
Item	Vegetatio	n		37.9009	40 °	37.900940°
item				-121.3264	14°	-121.326414°
DWR ID	DWR_RD0	524_01_s _ 201	2_94			
Comment Code						
V2 : Remove the wild growth other than native grasses from the levee						

slopes.

Inspector Comment

Remove cactus from waterside slope.



Photo 2 of 2: SP_2018_RD0524_107_94_20180323_00180.jpg

Looking southeast at cactus on waterside slope. Fall 2013

Photo 1 of 1: SP_2018_RD0524_107_253_20180323_00358.jpg

LM Start	3.97	Rating **	U	Issue No.		253	7
LM End	4.02	Issue Type +	Ма	Location *	ation * LS		
Catagoria Earthen Levee				GPS Latitude/Longitude			
Category			Start		End		
Item	Vegetatio	n		37.8997	48 °	37.899116 °	>
пеш				-121.3265	96°	-121.326905 °	>
DWR ID	DWR_RD0	524_01_f _ 201	7_253				

Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment



Looking southwest at the landside slope.

LM Start	3.97	Rating **	U	Issue No.		254			
LM End	4.03	Issue Type + Ma Location *		Issue Type + Ma Location *		Location *		WS	
Category	Earthen L	evee		GPS La	titud	e/Longitude			
Calegory	Category			Start		End			
Item	Vegetation			37.89971	8 °	37.898945 °			
пеш				-121.32660)5 °	-121.327003 °			
DWR ID	DWR_RD0	524_01_f _ 201	7_254						

Comment Code

V2: Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment



Looking southwest at the waterside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.03	Rating **	М	Issue No.		61
LM End	4.03	Issue Type +	Ма	Location *	ation * LS	
Category Earthen Levee				GPS La	atitud	e/Longitude
				Start		End
Item	Trim / Thi	n Trees		37.8989	25°	37.898925°
пеш				-121.3270	15 °	-121.327015 °
DWR ID	DWR_RD0524_01_s _ 2012_61					
Comment Code						

T1 : Trim trees to at least five feet above ground level.

Inspector Comment



Looking east at untrimmed tree at landward toe.

LM Start	4.10	Rating **	U	Issue No.		108	
LM End	4.15	Issue Type +	Ma	Location *	LS		
Category Earthen Levee				GPS La	atitud	e/Longitude	
Calegory	gory					End	
Item	Slope Sta	bility		37.898035 °		37.898071 °	
пеш				-121.3274	47°	-121.327806°	
DWR ID	WR ID DWR_RD0524_01_s _ 2012_108						
Comment Code							

S1 : Repair slope instability.

Inspector Comment

Slope depression is greater than 1" and longer than 200'.

LM Start	4.10	Rating **	U	Issue No.	108 (cont)
LM End	4.15	Issue Type +	Ma	Location *	LS

Photo 1 of 3: SP_2018_RD0524_107_108_20180323_00190.jpg



Looking north at caving slope on landside of levee.

Photo 2 of 3: SP_2018_RD0524_107_108_20180323_00191.jpg



Looking south at damage slope on landside of levee.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.10	Rating **	U	Issue No.		108 (cont)	
LM End	4.15	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Slope Stability			37.8980	35°	37.898071 °	
пеш			-121.327447 °		° -121.327806 °		
DWR ID DWR_RD0524_01_s _ 2012_108							
		Comn	nent Cod	de			
S1 : Repai	r slope ins	tability.					
			•				
Inspector Comment							
Slope depression is greater than 1" and longer than 200'.							



Looking southwest at caving slope on landside of levee. (Spring 2014)

LM Start	4.16	Rating **	М	Issue No.		213	
LM End	4.16	Issue Type +	Ма	Location *	LS		
Category	Earthen L	evee		GPS Latitude/Longitude			
Calegory			Start		End		
Item	Encroachments			37.897235°		37.897235 °	
пеш				-121.327865 °		5° -121.327865°	
DWR ID DWR_RD0524_01_s _ 2016_213							
Comment Code							
GA : Garbage							
Inspector Comment							
Old fence post and concrete and brick rubble on landside slope.							



Looking west at old fence post and concrete rubble on landward slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.37	Rating **	М	Issue No.		959	
LM End	4.37	Issue Type +	Ма	Location *			
Category				GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR UCIP LMA Responsibility			37.8944	53°	37.894453 °	
пеш				-121.329232 °		-121.329232 °	
DWR ID							
Comment Code							

Inspector Comment

FS_ID:18320 DS_ID:20626 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Small leak in pipe on LS slope and pipe slightly

crushed on LS toe.

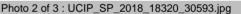
FIELD_STRUCT_DESC: 9-inch steel pipe of unknown purpose through the levee, 3 feet below the crown. Pump in drainage ditch on the landside (LS). Siphon breaker on the waterside (WS) slope. [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin O&M Manual 7, April 1964, (HLM 4.42) 8-inch pipe listed].

FS Date: 8/23/2013

LM Start	4.37	Rating **	М	Issue No.	959 (cont)
LM End	4.37	Issue Type +	Ma	Location *	



Pipe and siphon breaker on WS slope.





Small leak in pipe on LS slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.37	Rating **	М	Issue No.		959 (cont)	
LM End	4.37	Issue Type +	Ма	Location *			
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR UCIP LMA Responsibility			37.89445	3°	37.894453°	
пеш				-121.32923	2°	-121.329232°	
DWR ID							
Comment Code							

Inspector Comment

FS_ID:18320 DS_ID:20626 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Small leak in pipe on LS slope and pipe slightly

crushed on LS toe.

FIELD STRUCT DESC: 9-inch steel pipe of unknown purpose through the levee, 3 feet below the crown. Pump in drainage ditch on the landside (LS). Siphon breaker on the waterside (WS) slope. [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin O&M

Manual 7, April 1964, (HLM 4.42) 8-inch pipe listed].

FS Date: 8/23/2013

Photo 3 of 3: UCIP_SP_2018_18320_30592.jpg
A STATE OF THE STA
08/23/2013 (09:00)

Pipe partially crushed at LS toe.

LM Start	4.37	Rating **	М	Issue No.		255	
LM End	4.37	Issue Type +	Ma	Location *	LS		
Category Earthen Levee			GPS Latitude/Longitude				
Category				Start		End	
Itom	Item Animal Control			37.89444	l2°	37.894442 °	
пеш				-121.32923	88°	-121.329238 °	
DWR ID DWR_RD0524_01_f _ 2017_255							
Comment Code							

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Multiple rodent holes around gate stop post.

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.38	Rating **	M	Issue No.		111
LM End	4.38	Issue Type +	Ма	Location *		LS
Cotogony	Earthen L	evee		GPS La	atitud	e/Longitude
Category				Start		End
Item	Encroachments			37.8942	258°	37.894258 °
item				-121.329247°		-121.329247 °
DWR ID DWR_RD0524_01_s _ 2012_111						
		Comn	nent Cod	le		
TR : Tree	or limb					
		Inspecto	or Comm	nent		
Dead tree at landside toe should be removed from levee toe.						



Looking west at dead tree at landside toe.

LM Start	4.38	Rating **	М	Issue No.		165	
LM End	4.38	Issue Type +	Ма	Location *		WS	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory			Start		End		
Item	Animal Co	ontrol		37.894198°		37.894198°	
iteiii			-121.329272 °		-121.329272 °		
DWR ID DWR_RD0524_01_s _ 2017_165							
Comment Code							

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

No Photos

LM Start	4.40	Rating **	U	Issue No.		112
LM End	4.52	Issue Type +	Ma	Location *		LS
Category	Earthen L	evee		GPS La	atitud	le/Longitude
Calegory				Start		End
Item	Trim / Thin Trees			37.8939	33 °	37.892347 °
пеш				-121.3291	81 °	-121.328192 °
DWR ID	DWR_RD0	524_01_s _ 201	2_112			
		Comn	nent Cod	le		
T1: Trim t	rees to at	least five feet	above g	round level.		
Inspector Comment						
Untrimmed trees along landside slope and toe.						



Looking southeast at the landside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.40	Rating **	U	Issue No.		112 (cont)
LM End	4.52	Issue Type +	Ma	Location *		LS
Category	Earthen L	evee		GPS La	atitud	le/Longitude
Calegory				Start		End
Item	Trim / Thi	n Trees		37.8939	33°	37.892347 °
пеш				-121.329181 °		-121.328192 °
DWR ID DWR_RD0524_01_s _ 2012_112						
		Comn	nent Cod	le		
T1 : Trim t	rees to at l	east five feet	above g	round level		
			_			
		Inspecto	or Comm	nent		
Untrimmed trees along landside slope and toe.						

Ma

Issue No.

Location '

112 (cont)

LS

Rating **

Issue Type +

LM Start

LM End

4.40

4.52

Photo 2 of 3: SP_2018_RD0524_107_112_20180323_00196.jp	g

Looking southeast at untrimmed tree at landward toe.

Photo 3 of 3: SP_2018_RD0524_107_112_20180323_00197.jpg



Looking northeast at untrimmed tree on landward slope and toe fall 2015.

LM Start	4.42	Rating **	М	Issue No.		199	
LM End	4.42	Issue Type +	Ма	Location *		LS	
Cotogony	Earthen L	evee		GPS L	atitud	e/Longitude	
Category				Start		End	
Item	Encroach	ments		37.8936	59°	37.893659°	
пеш				-121.329092 °		-121.329092 °	
DWR ID DWR_RD0524_01_f _ 2015_199							
		Comn	nent Cod	de			
TR : Tree or limb							
Inspector Comment							
Remove dead tree from landside toe.							



Looking west at dead tree on landward slope and toe fall 2015.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

	4.50	Dating **		Issue No.		400	
LM Start	4.52	Rating **	U	issue ivo.		102	
LM End	4.52	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Category				Start		End	
Item	Encroach	ments		37.8923	83°	37.892383 °	
пеш			-121.328194°		-121.328194°		
DWR ID DWR_RD0524_01_f _ 2016_102							
Comment Code							
TR : Tree	or limb						
		Inspecto	or Comm	nent			
Dead tree	on watersi	de slope.					

LM Start	4.52	Rating **	U	Issue No.	102 (cont)
LM End	4.52	Issue Type +	Ma	Location *	WS



Looking southeast at dead tree on waterside slope fall 2015

Photo 2 of 2: SP_2018_RD0524_107_102_20180323_00187.jpg



Looking southeast at dead tree on waterside slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.53	Rating **	A/W	Issue No.		90
LM End	4.54	Issue Type +	Ма	Location *	WS	
Cotogony	Suppleme	ental		GPS L	atitud	e/Longitude
Category				Start		End
Item	DWR Ero	sion Survey		37.8922	30°	37.892230°
item				-121.3279	30°	-121.327930°
DWR ID RD0524U01RM45.07						
		Comn	nent Cod	de		
		Inspecto	or Comm	nent		
09/13/201	7: No signi	ficant change	observe	ed.		
07/25/201	6: No signi	ficant change	observe	ed.		
06/24/201	5: No signi	ficant change	observe	ed.		
06/19/2014: No significant change observed.						
08/13/2013: No significant change observed.						
08/07/2012: The erosion is located at the inside of a river bend. Site is						
covered with broken concrete blocks and other debris. [2017 Site						

A Steine		

Photo 1 of 3: SP_2018_RD0524_107_90_20180323_00172.jpg

Front view of the erosion site.

LM Start 4.53 Rating ** A/W Issue No. 90 (cont) LM End 4.54 Issue Type + Ma Location * WS

ID:RD0524U01RM45.07]

Photo 2 of 3: SP_2018_RD0524_107_90_20180323_00173.jpg



Close view of the site.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.53	Rating **	A/W	Issue No.	90 (cont)		
LM End	4.54	Issue Type +	Ma	Location *	WS		
Supplemental			GPS Latitude/Longitude				
Category				Start		End	
Item	DWR Ero	sion Survey		37.8922	30°	37.892230	٥
пеш			-121.32793	30°	-121.327930	٥	
DWR ID RD0524U01RM45.07							
Comment Code							

Inspector Comment 09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The erosion is located at the inside of a river bend. Site is covered with broken concrete blocks and other debris. [2017 Site ID:RD0524U01RM45.07]



Front view of the site. Note the loosely placed concrete blocks at the site.

LM Start	4.53	Rating **	A/W	Issue No.		235	
LM End		Issue Type +	Ma	Location *			
Category	Suppleme	ental	GPS Latitude/Longitude				
Calegory				Start	End		
Item	2017 Stor	m Damage		37.892200	°		0
пеш				-121.328000	°		0
DWR ID	DWR ID DWR_RD0524_01_f _ 2017_235						
	Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design

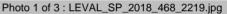
The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No:468

Site Designation:LMA-295 Repair Type: Erosion

Rating:Serious Field Date:7/26/2017

Notes: Serious because erosion is impacting the levee, but there is some slope protection here. Slope is armored with asphalt and concrete rubble. The surrounding slopes are pretty baren, but there is a small bush within the site so it may be older.





Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.53	Rating **	A/W	Issue No.		235 (cont)	
LM End		Issue Type +	Ma	Location *			
Category	Suppleme	ental	GPS Latitude/Longitude				
Calegory				Start		End	
Item	2017 Stor	m Damage		37.89220	00°		0
пеш				-121.32800	00°		0
DWR ID DWR_RD0524_01_f _ 2017_235							
	Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No:468

Site Designation:LMA-295

Repair Type: Erosion

Rating:Serious

Field Date:7/26/2017

Notes: Serious because erosion is impacting the levee, but there is some slope protection here. Slope is armored with asphalt and concrete rubble. The surrounding slopes are pretty baren, but there is a small bush within the site so it may be older.

LM	1 Start	4.53	Rating **	A/W	Issue No.	235 (cont)
LN	/I End		Issue Type +	Ma	Location *	



Photo 3 of 3: LEVAL_SP_2018_468_2221.jpg



CR: Crown

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.56	Rating **	М	Issue No.		257	
LM End	4.56	Issue Type +	Ma	Location *		LS	
Category	Earthen L	.evee		GPS L	atitud	e/Longitude	
Calegory				Start		End	
Item	Animal Control			37.8919	003°	37.891903 °	
пеш						-121.328264 °	
DWR ID	DWR_RD0	524_01_f _ 201	7_257				
		Comn	nent Cod	de			
A3 : No ro compact of		le, but rodent rows.	burrows	visible; ne	ed to	backfill and	
		Inspecto	or Comm	nent			



Looking west at the landside slope.

LM Start	4.61	Rating **	U	Issue No.		63	
LM End	4.61	Issue Type +	Ма	Location *		LS	
Category	evee	GPS La	atitud	e/Longitude			
Calegory				Start		End	
Item	Trim / Thin Trees				85 °	37.891285	٥
item				-121.3287	28°	-121.328728	٥
DWR ID DWR_RD0524_01_s _ 2012_63							
Comment Code							

T1 : Trim trees to at least five feet above ground level.

Inspector Comment



Looking south at dense trees on landside slope.

LM Start	4.63	Rating **	M	Issue No.		259	
LM End	4.63	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory	3 7					End	
Item	Animal Co	ontrol		37.8909	87°	37.890987	٥
iteiii				-121.3289	56 °	-121.328956	٥
DWR ID	DWR_RD0	524_01_f _ 201	7_259				
		0		1.			

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.63	Rating **	М	Issue No.		113
LM End	4.63	Issue Type +	Ма	Location *		LS
Category	Earthen Levee			GPS Latitude/Longitude		
Calegory				Start		End
Item	Trim / Thin Trees			37.890973 °		37.890973°
пеш				-121.3289	70°	-121.328970 °
DWR ID	DWR_RD0	524_01_s _ 201	2_113			
		Comn	nent Cod	le		
T1: Trim t	rees to at	least five feet	above g	round level.		

Inspector Comment



Looking north at dense trees on landside slope.

LM Start	4.70	Rating **	U	Issue No.		67	
LM End	4.70	Issue Type +	Ma	Location *		LS	
Category	Earthen L	arthen Levee			GPS Latitude/Longitude		
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.8901	08 °	37.890108°	
пеш			-121.3295	23 °	-121.329523 °		
DWR ID	DWR_RD0	524_01_s _ 201	2_67				

Comment Code

T1 : Trim trees to at least five feet above ground level.

Inspector Comment

Fig tree at landside toe.

Photo 1 of 1 : SP_2018_RD0524_107_67_20180323_00136.jpg



Looking northwest at untrimmed tree on landward slope.

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.76	Rating **	A/W	Issue No.		236	
LM End	4.76	Issue Type +	Ma	Location *			
Category	Supplemental				GPS Latitude/Longitude		
Calegory				Start		End	
Item	2017 Stor	m Damage		37.88930	00°	37.889300°	
item				-121.32980	00°	-121.329800 °	
DWR ID	DWR_RD0524_01_f _ 2017_236						
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:523 Site Designation:LMA-429 Repair Type: Erosion Rating:Area of Concern Field Date:8/15/2017

Notes:

LM Start	4.76	Rating **	A/W	Issue No.	236 (cont)
LM End	4.76	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL_SP_2018_523_4218.jpg



N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.76	Rating **	A/W	Issue No.		236 (cont)	
LM End	4.76	Issue Type +	Ma	Location *			
Category Supplemental				GPS Latitude/Longitude			
Calegory				Start		End	
Item	2017 Stor	m Damage		37.8893	00°	37.889300°	
пеш				-121.3298	° 00	-121.329800 °	
DWR ID	DWR ID DWR_RD0524_01_f _ 2017_236						
	Comment Code						

Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:523

Site Designation:LMA-429 Repair Type: Erosion

Rating: Area of Concern Field Date:8/15/2017

Notes:



LM End 4	^^					84	
LIVI LIIU -	.93	Issue Type +	Ma	Location *		LS	
Category	evee	GPS Latitude/Longitude					
Calegory				Start		End	
Trim Item	Trim / Thin Trees				13°	37.887258 °	
item				-121.3311	61 °	-121.331596 °	
DWR ID DWR_RD0524_01_s _ 2012_84							

Comment Code

T1: Trim trees to at least five feet above ground level.

Inspector Comment

Untrimmed trees on landside slope.

Thursday, May 31, 2018 12:47

Photo 1 of 1: SP_2018_RD0524_107_84_20180323_00168.jpg



Looking west at untrimmed tree on landward slope.

Issue Type

Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	4.96	Rating **	U	Issue No.		114		
LM End	4.98	Issue Type +	Ма	Location *	LS			
Earthen Levee				GPS La	atitud	le/Longitude		
Category				Start		End		
Vegetation			37.8869	48°	37.886672°			
пеш				-121.3318	34°	-121.331962°		
DWR ID DWR_RD0524_01_s _ 2012_114								
		Comn	nent Cod	le				
V4 : Elderl	berries are	blocking visit	oility and	flood fight	capa	ability.		
		Inspecto	or Comm	nent				
Dense eld	erberry on	landside slop	e.					
	•							



Looking southwest at dense elderberry bush on landward slope and toe fall 2015.

LM Start	5.00	Rating **	М	Issue No.		260	
LM End	5.00	Issue Type +	Ма	Location *	LS		
Category Earthen Levee				GPS La	atitud	e/Longitude	
Calegory			Start		End		
Item	Trim / Thin Trees			37.8863	67°	37.886367°	
пеш				-121.3320	47 °	-121.332047 °	
DWR ID	DWR_RD0	524_01_f _ 201	7_260				
Comment Code							
T4: Trim t	rees over	roadway to at	least 12	feet above	aroı	and level.	

Inspector Comment



Looking southwest at the landside slope.

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence
En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.05	Rating **	U	Issue No.		188	
LM End	5.07	Issue Type +	Ma	Location *	LS		
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Trim / Thin Trees			37.8856	73°	37.885315 °		
пеш		-121.3321	22 °	-121.332139 °			
DWR ID DWR_RD0524_01_s _ 2014_188							
		Comn	nent Cod	le			
T1 : Trim t	rees to at l	east five feet	above g	round level			
		Inspecto	or Comm	nent			
Untrimmed	trees on	landside slope	and toe) .			

Photo 1 of 1 : SP_2018	3_RD0524_	_107_1	88_20180323_	_00263.jpg
		<i>i</i> ,		
	- CO.			
CAR A				
				and the

Looking south at oleander on landward slope.

LM Start	5.07 Rating ** U		Issue No.		68		
LM End	5.07	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee		GPS La	GPS Latitude/Longitude		
Calegory	Category					End	
Item	Trim / Thi	Trim / Thin Trees			00°	37.885400 °	
item			-121.3321	53 °	-121.332153 °		
DWR ID	DWR_RD0524_01_s _ 2012_68						

Comment Code

T4: Trim trees over roadway to at least 12 feet above ground level.

Inspector Comment



Looking south at overhanging trees.

LM Start	5.08 Rating ** U		Issue No.		261		
LM End	5.13	Issue Type +	Ма	Location *		WS	
Category	Earthen L	arthen Levee GPS			itud	e/Longitude	
Calegory			Start		End		
Item	Vegetatio	n		37.88520	6°	37.884465°	
пеш				-121.33215	9°	-121.332134°	
DWR ID	DWR_RD0	DWR_RD0524_01_f _ 2017_261					

Comment Code

 $\ensuremath{\text{V2}}$: Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment



Looking south at the waterside slope.

+ Issue Type

* Location		** Rating		١
LS: Land Side	N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	
WS: Water Side		M : Minimally Acceptable	C : Corrected	П
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.12	Rating **	U	Issue No.	266			
LM End	5.16	Issue Type +	Ma	Location *	LS			
Category	Earthen Levee					e/Longitude		
Calegory				Start		End		
Item	Trim / Thin Trees			37.8846	08 °	37.884023 °		
пеш			-121.332153 °		-121.332100 °			
DWR ID	DWR_RD0	524_01_f _ 201	7_266					
		Comn	nent Cod	le				
T1: Trim t	rees to at	least five feet	above g	round level.				
	Inspector Comment							



Looking south at the landside slope.

LM Start	5.19 Rating ** M		М	Issue No.		115	
LM End	5.19	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee		GPS Latitude/Longitude			
Calegory	gory			Start		End	
Item	Slope Sta	bility		37.8835	87°	37.883587	0
item			-121.3321	00 °	-121.332100	0	
DWR ID	DWR_RD0524_01_s _ 2012_115						

Comment Code

S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comment

Vehicle traffic created a ramp on landside slope.

Photo 1 of 1: SP_2018_RD0524_107_115_20180323_00200.jpg



Looking northwest at slope damage on landward slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.22	Rating **	М	Issue No.		116	
LM End	5.22	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Encroach	ments		37.8831	70°	37.883170 °	
пеш				-121.3322	27°	-121.332227 °	
DWR ID	DWR_RD0	524_01_s _ 201	2_116				
		Comn	nent Cod	le			
TR : Tree	or limb						
		Inspecto	or Comm	nent			
Dead tree limbs on waterside slope.							

No Photos

LM Start	5.28	Rating **	U	Issue No.		85		
LM End	5.34	Issue Type +	Ma	Location *		LS		
Category Earthen Levee			GPS Latitude/Longitude					
Category			Start		End			
Item	Trim / Thin Trees			37.8823	63 °	37.881511°		
item				-121.3325	77 °	-121.332777°		
DWR ID	DWR_RD0	524_01_s _ 201	2_85					
Comment Code								
T1: Trim t	T1 : Trim trees to at least five feet above ground level.							

Inspector Comment



Looking south at untrimmed trees on landward slope.

LM Start	5.35	Rating **	A/W	Issue No.		268		
LM End	5.37	Issue Type +	Ma	Location *		WS		
Category Earthen Levee				GPS Latitude/Longitude				
Calegory				Start		End		
Item	Vegetatio	n		37.8814	15 °	37.881131 °		
пеш				-121.3327	95 °	-121.332814°		
DWR ID DWR_RD0524_01_f _ 2017_268								
	Comment Code							

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.38	Rating **	U	Issue No.		932		
LM End	5.41	Issue Type +	Ma	Location *	LS			
Catagonia Earthen Levee			GPS La	tituc	le/Longitude			
Category				Start		End		
Item	Trim / Thi	n Trees		37.88094	45 °	37.880522 °		
пеш				-121.33283	37 °	-121.332918 °		
DWR ID DWR_RD0524_01_s _ 2012_932								
	Comment Code							

T1 : Trim trees to at least five feet above ground level.

Inspector Comment



Looking south at untrimmed trees on landward slope and toe.

LM Start	5.39	Rating **	М	Issue No.		178		
LM End	5.39	Issue Type +	Ma	Location *		LS		
Category Earthen Levee				GPS Latitude/Longitude				
				Start		End		
Item	Encroachments			37.8808	06°	37.880806°		
item				-121.3328	33 °	-121.332833 °		
DWR ID DWR_RD0524_01_f _ 2014_178								
Comment Code								

TR : Tree or limb

Inspector Comment

Downed tree on landside toe.



Looking south at downed tree on landward slope.

* Rating

A: Acceptable

M: Minimally Acceptable

U: Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.41	Rating **	U	Issue No.		962
LM End	5.41	Issue Type +	Ма	Location *		
Category			GPS Lat	ituc	le/Longitude	
Calegory				Start		End
Item	DWR UC	DWR UCIP LMA Responsibility			4 °	37.880584 °
item				-121.33290	1°	-121.332901 °
DWR ID						

Inspector Comment

Comment Code

FS_ID:51633 DS ID:20630 EP_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: 11/16/2016 same as previous inspection hole in pipe is still pressent on WS near toe. This pipe does not appear to be in use. Need to contact owner to determine status of crossing. If the crossing is abandoned or still in use, owner will need to coordinate with the CVFPB to comply with Title 23 requirements. (O. Magana - DWR

UCIP)08/23/2013 flap gate damage and does not work at WS toe. Large hole in pipe at WS toe. Pipe appears abandoned and should be

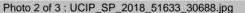
done so properly. (W. Wylie - DWR UCIP)

FIELD_STRUCT_DESC: *ABANDONED* 1 of 2: 12-inch steel irrigation pipe through the levee, 6 feet below the crown. Pump located on the waterside (WS), no pump found in 2013. Flap gate located on the WS end. [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin O&M Manual 7, April 1964, (HLM 5.48) 10-inch pipe listed, Drawing No. 07-04-1490, Sheet 1490/4, (Station 8+01.3)]. FS Date: 11/16/2016

LM Start	5.41	Rating **	U	Issue No.	962 (cont)
LM End	5.41	Issue Type +	Ma	Location *	



Pipe visible on WS slope.





Vent on pipe on WS slope. Possible slurry standpipe that has not yet been used.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.41	Rating **	U	Issue No.		962 (cont)
LM End	5.41	Issue Type +	Ма	Location *		
Category	ental	GPS La	tituc	le/Longitude		
Calegory				Start		End
Item	DWR UC	IP LMA Respo	onsibility	37.8805	84°	37.880584°
пеш				-121.3329	01 °	-121.332901 °
DWR ID						
	Comment Code					

Inspector Comment

FS_ID:51633 DS_ID:20630 EP_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: 11/16/2016 same as previous inspection hole in pipe is still pressent on WS near toe. This pipe does not appear to be in use. Need to contact owner to determine status of crossing. If the crossing is abandoned or still in use, owner will need to coordinate with the CVFPB to comply with Title 23 requirements. (O. Magana - DWR

UCIP)08/23/2013 flap gate damage and does not work at WS toe. Large hole in pipe at WS toe. Pipe appears abandoned and should be done so properly. (W. Wylie - DWR UCIP)

FIELD_STRUCT_DESC: *ABANDONED* 1 of 2: 12-inch steel irrigation pipe through the levee, 6 feet below the crown. Pump located on the waterside (WS), no pump found in 2013. Flap gate located on the WS end. [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin O&M Manual 7, April 1964, (HLM 5.48) 10-inch pipe listed, Drawing No. 07-04-1490, Sheet 1490/4, (Station 8+01.3)].

FS Date: 11/16/2016



Broken flap gate at WS toe.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.42	Rating **	М	Issue No.		963
LM End	5.42	Issue Type +	Ма	Location *		
Category	ental	GPS Latitude/Longitude				
Calegory				Start		End
Item	DWR UCI	P LMA Respo	onsibility	37.8803	58°	37.880358 °
пеш	item					-121.332972 °
DWR ID						
	Comment Code					

Inspector Comment

FS_ID:18348 DS_ID:20631 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Recent work being done on WS slope. Pipe may still

be in use.

FIELD_STRUCT_DESC: 10-inch steel drainage pipe through the levee, 6 feet below the crown. Pump not found on the landside (LS).

[Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin

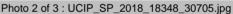
O&M Manual 7, April 1964, (HLM 5.50)].

FS Date: 8/23/2013

LM Start	5.42	Rating **	М	Issue No.	963 (cont)
LM End	5.42	Issue Type +	Ma	Location *	



10-inch pipe debris on the WS slope.





8-inch pipe sleeved through 10-inch pipe with vent on WS slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.42	Rating **	М	Issue No.		963 (cont)
LM End	5.42	Issue Type +	Ма	Location *		
Category	ental	GPS La	titud	le/Longitude		
Calegory				Start		End
Item	DWR UC	IP LMA Respo	onsibility	37.8803	58°	37.880358°
пеш	item					-121.332972 °
DWR ID						
	Comment Code					

Inspector Comment

FS_ID:18348 DS_ID:20631 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Recent work being done on WS slope. Pipe may still

be in use.

FIELD_STRUCT_DESC: 10-inch steel drainage pipe through the levee,

6 feet below the crown. Pump not found on the landside (LS). [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin

O&M Manual 7, April 1964, (HLM 5.50)].

FS Date: 8/23/2013



No flap gate on end of pipe at WS toe.

LM Start	5.42	Rating **	M	Issue No.		118	
LM End	5.42	Issue Type +	Ma	Location *		LS	
Category	evee	GPS Latitude/Longitude					
Calegory			Start		End		
Item	Slope Sta	37.8803	23°	37.880323 °			
пеш		-121.3329	68 °	-121.332968 °			
DWR ID DWR_RD0524_01_s _ 2012_118							
	Comment Code						
a							

S1: Repair slope instability.

Inspector Comment

Slope damage caused by human activity.

Photo 1 of 3: SP_2018_RD0524_107_118_20180323_00202.jpg



Looking west at slope damage on landside slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.42	Rating **	М	Issue No.		118 (cont)	
LM End	5.42	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Slope Sta	bility		37.8803	23°	37.880323°	
item				-121.3329	68°	-121.332968 °	
DWR ID DWR_RD0524_01_s _ 2012_118							
		Comn	nent Co	de			
S1 : Repai	ir slope ins	tability.					
		Inspecto	or Comn	nent			
Slope damage caused by human activity.							

LM Start	5.42	Rating **	М	Issue No.	118 (cont)				
		,							
Slope dam	Slope damage caused by human activity.								

Issue Type +

LM End

Location *

LS



Looking southeast at damaged slope.

Photo 3 of 3: SP_2018_RD0524_107_118_20180323_00204.jpg



Looking east at slope caving on landside slope.

LM Start	5.44	Rating **	U	Issue No.		73	
LM End	5.44	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee		GPS La	atitude	e/Longitude	
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.8800	85°	37.880085 °	
пеш				-121.333045 °		-121.333045 °	
DWR ID	ID DWR_RD0524_01_s _ 2012_73						
		Comn	nent Coc	le			
T1 : Trim t	rees to at	east five feet	above g	round level			
	Inspector Comment						
Untrimmed trees on landside slope.							



Looking southwest at large untrimmed tree on landward slope.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.53	Rating **	М	Issue No.	92			
LM End	5.53	Issue Type +	Ma	Location *		WS		
Category	Suppleme	ental		GPS L	atitud	e/Longitude		
Category				Start		End		
Item	DWR Ero	sion Survey		37.8789	920°	37.878920°		
item				-121.332670 °		-121.332670 °		
DWR ID RD0524U01RM46.06								
Comment Code								
		Inspecto	or Comm	nent				
		ficant change						
07/25/201	6: No signi	ficant change	observe	d.				
06/24/2015: No significant change observed.								
06/19/2014: No significant change observed.								
08/13/2013: Larger trees are at the levee shoulder, and an irrigation								
pump station is next to the erosion site. [2017 Site								
ID:RD0524U01RM46.06]								

Photo 1 of 2 : SP_2018_RD0524_107_92_20180323_00175.jpg	

Front view of the erosion.

LM Start 5.53 Rating ** M Issue No. 92 (cont) LM End 5.53 Issue Type + Ma Location * WS

Photo 2 of 2: SP_2018_RD0524_107_92_20180323_00176.jpg



Close view of the site.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.58	Rating **	M	Issue No.		167		
LM End	5.58	Issue Type +	Ma	Location *		LS		
Earthen Levee			GPS La	atitud	e/Longitude			
Category				Start		End		
Item	Slope Sta	Slope Stability			15 °	37.878115°		
item			-121.332763 °		-121.332763 °			
DWR ID	DWR ID DWR_RD0524_01_s _ 2017_167							
		Comn	nent Cod	de				
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.								
Inspector Comment								
Slope damage caused by vehicle traffic.								



Looking west at slope damage caused by vehicle traffic on landward slope.

LM Start	5.63	Rating **	М	Issue No.		168
LM End	5.63	Issue Type +	Ma	Location *		LS
Category	Earthen L	evee		GPS La	atitud	le/Longitude
Calegory			Start		End	
Item	Slope Stability		37.8775	27°	37.877527°	
iteiii				-121.332385 °		-121.332385 °
DWR ID DWR_RD0524_01_s _ 2017_168						
		C		l_		

Comment Code

S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comment

Slope damage on landside slope.

Photo 1 of 1 : SP_2018_RD0524_107_168_20180323_00230.jpg



Looking northwest at slope damage caused by vehicle traffic on landward slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.64	Rating **	U	Issue No.	215		
LM End	5.64	Issue Type +	Ма	Location *	LS		
Category Earthen Levee			GPS Latitude/Longitude				
Calegory						End	
Item	Slope Sta	Slope Stability			78 °	37.877378°	
пеш	item			-121.33234	13 °	-121.332343 °	
DWR ID DWR_RD0524_01_s _ 2016_215							
Comment Code							

S1 : Repair slope instability.

Inspector Comment

Levee slope damage is due vehicle traffic and foot traffic. Vehicle traffic created a ramp on landside slope.

LM Start	.M Start 5.64 Rating **		U	Issue No.	215 (cont)
LM End	5.64	Issue Type +	Ma	Location *	LS



Looking north at damage slope on landward slope.

Photo 2 of 3: SP_2018_RD0524_107_215_20180323_00297.jpg



Looking north at slope damage (ramp) on landward slope.

Photo 3 of 3: SP_2018_RD0524_107_215_20180323_00298.jpg

LM Start	5.64	Rating **	U	Issue No.	215 (cont)
LM End	5.64	Issue Type +	Ma	Location *	LS



Looking west at damage slope on landward slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway		Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.64	Rating **	М	Issue No.	69			
LM End	5.80	Issue Type +	Ma	Location *	LS			
Category	Earthen L	evee		GPS La	atitud	le/Longitude		
Calegory				Start		End		
Item	Animal Control			37.8772	98°	37.875073°		
пеш				-121.332343 °		-121.333168 °		
DWR ID	DWR_RD0	524_01_s _ 201	12_69					
		Comn	nent Cod	le				
	A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.							
	Inspector Comment							
District has	s grouted r	odent holes, l	out roder	nts are still	pres	ent.		

LM Start	5.64	Rating **	М	Issue No.	69 (cont)
LM End	5.80	Issue Type +	Ma	Location *	LS



Looking south at rodent holes on landward slope.

Photo 2 of 2: SP_2018_RD0524_107_69_20180323_00139.jpg



LM Start	5.64	Rating **	U	Issue No.		117	
LM End	5.64	Issue Type +	Ма	Location *	LS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Trim / Thi	n Trees	37.8772	72°	37.877272°		
пеш				-121.332400 °		-121.332400 °	
DWR ID	DWR_RD0	524_01_f _ 201	3_117			·	
		Comn	nent Coc	le			
T1: Trim t	rees to at	least five feet	above g	round level			
		Inspecto	or Comm	nent			



Looking northwest at untrimmed tree on landward slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.76	Rating **	U	Issue No.	271		
LM End	5.76	Issue Type +	Ма	Location *	WS		
Category	Earthen Levee			GPS La	atitud	e/Longitude	
Calegory			Start		End		
Item	Animal Co	Animal Control			31 °	37.875631 °	
item				-121.3329	07°	-121.332907 °	
DWR ID	DWR_RD0	524_01_f _ 201	7_271				
		Comn	nent Cod	de			
A3 : No rodents visible, but rodent burrows visible; need to backfill and							

Inspector Comment



Looking east at the waterside slope.

LM Start	5.77	Rating **	М	Issue No.		197		
LM End	5.79	Issue Type +	Ма	Location *		LS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Calegory			Start		End			
Item	Animal Control			37.875545°		37.875310°		
item	Animal Control 37.875545 ° -121.332952 ° DWR_RD0524_01_s _ 2015_197	-121.333065 °						
DWR ID	DWR_RD0	524_01_s _ 201	5_197					
Comment Code								
A1 : Exterr	A1 : Exterminate rodents and backfill and compact or grout burrows.							

Inspector Comment

Several rodent holes on landside slope and levee crown.

LM Start	5.77	Rating **	М	Issue No.	197 (cont)
LM End	5.79	Issue Type +	Ma	Location *	LS



Looking north at typical view of rodent holes on landward slope.

Photo 2 of 2: SP_2018_RD0524_107_197_20180323_00274.jpg



Looking southwest at typical view of rodent hole at landward shoulder.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.81	Rating **	U	Issue No.		183	
LM End	5.81	Issue Type +	Ма	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Erosion / Bank Caving					37.874973°	
Item	-121.333227 ° -12						
DWR ID DWR_RD0524_01_s _ 2017_183							
	Comment Code						
E2 : Sched	dule repair	of erosion site	e prior to	the next in	spe	ction.	
		Inonante	or Comm	ant.			
		mspecio	or Comm	ient			
Bank cavir	ng on wate	rside around _l	oipe stru	cture.			

Ma

Issue No.

Location *

5.81

5.81

LM Start

LM End

Rating **

Issue Type +

hot	to 1 of 3:	SP_2018	_RD0524 ₋	_107_183	_20180323_	_00256.	.jpg
		M	1			1	
			世			New York	
			4				
						1	

Looking west at erosion around pipe and on waterward slope.

183 (cont)

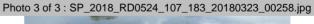
WS

Photo 2 of 3: SP_2018_RD0524_107_183_20180323_00257.jpg



Looking south at erosion around pipe and on waterward slope.

LM Start	5.81	Rating **	U	Issue No.	183 (cont)
LM End	5.81	Issue Type +	Ma	Location *	WS





Looking east at erosion on waterward slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

	F 00	Rating **		Issue No.		00	
LM Start	5.86	Raung	U	issue ivo.		93	
LM End	5.86	Issue Type +	Ma	Location *		WS	
Category	Suppleme	ental		GPS L	atitud	e/Longitude	
Calegory				Start		End	
Item	DWR Ero	sion Survey		37.8743	370°	37.874370°	
item				-121.332850 °		-121.332850 °	
DWR ID RD0524U01RM46.39							
Comment Code							
		Inspecto	or Comm	nent			
09/13/2017	7: No signi	ficant change	observe	ed.			
likely caused the erosion. [2017 Site ID:RD0524U01RM46.39]							
Inspector Comment 09/13/2017: No significant change observed. 07/25/2016: No significant change observed. 06/24/2015: No significant change observed. 06/19/2014: No significant change observed. 08/13/2013: No significant change observed. 08/07/2012: The erosion is near a water-intake structure. Pipe leakage							

Photo 1 of 2: SP_2018_RD0524_107_93_20180323_00177.jpg	
And the second s	

Front view of the site.

LM Start 5.86 Rating ** U Issue No. 93 (cont) LM End 5.86 Issue Type + Ma Location * WS

Photo 2 of 2: SP_2018_RD0524_107_93_20180323_00178.jpg



View of the erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.86	Rating **	М	Issue No.	75		
LM End	5.88	Issue Type +	Ma	Location *	WS		
Category Earthen Levee			GPS Latitude/Longitude				
			Start		End		
Item	Animal Co	ontrol		37.87424	10°	37.874002	0
пеш			-121.33318	37°	-121.333027	0	
DWR ID DWR_RD0524_01_s _ 2012_75							
Comment Code							

A1: Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment

District has grouted rodent holes, but other rodent holes have appeared. Active rodents in area.

LM Start	5.86	Rating **	М	Issue No.	75 (cont)
LM End	5.88	Issue Type +	Ma	Location *	WS



Looking typical view of several rodent holes on landward slope and toe.

Photo 2 of 2: SP_2018_RD0524_107_75_20180323_00152.jpg



Looking southwest at typical rodent holes on waterward slope.

LM Start	5.87	Rating **	U	Issue No.		74
LM End	5.87	Issue Type +	Ma	Location *		WS
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Calegory		Start		End		
Item	Erosion /	Erosion / Bank Caving				37.874086°
item				-121.3331	97 °	-121.333153 °
DWR ID DWR_RD0524_01_s _ 2012_74						
		Comn	nent Coc	le		
E1 : Note	and monito	or erosion site				
Inspector Comment						
Erosion on landside slope around intake pipe.						

Photo 1 of 3: SP_2018_RD0524_107_74_20180323_00148.jpg



Looking southeast at erosion around pipe.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.87	Rating **	U	Issue No.	74 (cont)	
LM End	5.87	Issue Type +	Ma	Location *		WS
Category	Earthen L	evee		GPS La	atitud	le/Longitude
Category				Start		End
Item	Erosion /	Bank Caving		37.8742	02 °	37.874086 °
item			-121.333197°		-121.333153 °	
DWR ID DWR_RD0524_01_s _ 2012_74						
		Comn	nent Cod	le		
E1 : Note and monitor erosion site.						
		Inspecto	or Comm	nent		
Erosion on landside slope around intake pipe.						

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Photo 2 of 3: SP_2018_RD0524_107_74_20180323_00149.jpg

Looking west at erosion around intake pipe on landward slope.

LM Start 5.87 Rating ** U Issue No. 74 (cont) LM End 5.87 Issue Type + Ma Location * WS

Photo 3 of 3: SP_2018_RD0524_107_74_20180323_00150.jpg



Erosion at waterward toe and around irrigation pipe at LM 5.92

LM Start	5.87	Rating **	M	Issue No.		273
LM End	5.87	Issue Type +	Ma	Location *		WS
Category	Earthen L	evee		GPS L	atitud	le/Longitude
Category				Start		End
Item	Animal Co	ontrol		37.8741	96°	37.874196 °
item				-121.333195 °		-121.333195 °
DWR ID	DWR_RD0	524_01_f _ 201	7_273			
		Comn	nent Cod	de		
A3 : No roccompact o		le, but rodent rows.	burrows	visible; ne	ed to	backfill and
Inspector Comment						

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	5.87	Rating **	М	Issue No.	98			
LM End	5.87	Issue Type +	Ma	Location *		LS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Category				Start		End		
Item	Trim / Thin Trees			37.8740	85 °	37.874085 °		
пеш				-121.3331	54°	-121.333154°		
DWR ID	DWR_RD0	524_01_s _ 201	2_98					
		Comn	nent Coo	le				
T1 : Trim trees to at least five feet above ground level.								
	Inspector Comment							

Inspector Commen

Untrimmed walnut tree on landside slope.



Looking west at walnut tree on landward slope.

LM Start	5.89	Rating **	U	Issue No.		119		
LM End	5.89	Issue Type +	Ма	Location *		LS		
Catagony	Earthen Levee			GPS Latitude/Longitude				
Category			Start		End			
Item	Slope Stability			37.8738	93 °	37.873893 °		
item				-121.332978 °		-121.332978°		
DWR ID	DWR_RD0	524_01_s _ 201	2_119					

Comment Code

S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comment

Landowner is using damaged area as a ramp.

LM Start	5.89	Rating **	U	Issue No.	119 (cont)
LM End	5.89	Issue Type +	Ma	Location *	LS

Photo 1 of 2: SP_2018_RD0524_107_119_20180323_00205.jpg



Looking west at unauthorized ramp and landside slope damage.

Photo 2 of 2: SP_2018_RD0524_107_119_20180323_00206.jpg



Looking southwest at damaged slope and ramp on landside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	6.08	Rating **	М	Issue No.		272	
LM End	6.08	Issue Type +	Ma	Location *		LS	
Cotogony	Earthen L	evee		GPS La	atituc	le/Longitude	
Category				Start		End	
Item	Animal Co	ontrol		37.8721	21 °	37.872121 °	
пеш				-121.330568 °		-121.330568 °	
DWR ID DWR_RD0524_01_f _ 2017_272							
		Comn	nent Cod	le			
A3 : No roc compact o		le, but rodent rows.	burrows	visible; nee	ed to	backfill and	
		Inspecto	or Comm	ent			

No Photos

LM Start	6.15	Rating **	М	Issue No.		81	
LM End	6.15	Issue Type +	Ма	Location *	LS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Encroachments			37.8710	97°	37.871097°	
пеш				-121.330100 °		-121.330100 °	
DWR ID DWR_RD0524_01_s _ 2015_81							
		Comn	nent Cod	de			
TR : Tree	or limb						
		Inspecto	or Comm	nent			
Fallen tree	Fallen tree branches and limbs on landside slope.						



Looking west at tree branches and limbs left on landward shoulder and slope. (Spirng 2016)

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	04/24/2018 04/24/2018	Richard Willoughby

LM Start	6.15	Rating **	М	Issue No.		81 (cont)
LM End	6.15	Issue Type +	Ма	Location *		LS
Category	Earthen Levee			GPS Latitude/Longitude		
Calegory				Start		End
Item	Encroachments			37.8710	97°	37.871097°
пеш				-121.3301	00°	-121.330100 °
DWR ID	DWR_RD0524_01_s _ 2015_81					
Comment Code						
TR : Tree or limb						
Inspector Comment						
Fallen tree branches and limbs on landside slope.						

Photo 2 of 4 : SP_2018_RD0524_107_81_20180323_00162.jpg

Looking south at tree branches and limbs left on landward shoulder and slope. (Spring 2016)

 LM Start
 6.15
 Rating **
 M
 Issue No.
 81 (cont)

 LM End
 6.15
 Issue Type +
 Ma
 Location *
 LS

Photo 3 of 4: SP_2018_RD0524_107_81_20180323_00163.jpg



Looking southwest at large tree across levee crown. (Fall 2015)

Photo 4 of 4: SP_2018_RD0524_107_81_20180323_00164.jpg

LM Start	6.15	Rating **	М	Issue No.	81 (cont)
LM End	6.15	Issue Type +	Ma	Location *	LS



Looking south at large tree across levee crown. (Fall 2015)

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement